



# PUBLIC NOTICE

US Army Corps  
of Engineers  
New York District  
Jacob K. Javits Federal Building  
New York, N.Y. 10278-0090  
ATTN: Regulatory Branch

In replying refer to:  
Public Notice Number: **NAN-2008-01564**  
Issue Date: April 29, 2009  
Expiration Date: May 28, 2009

To Whom It May Concern:

The New York District, Corps of Engineers has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), and Section 404 of the Clean Water Act (33 U.S.C. 1344).

APPLICANT: Bayonne Energy Center, LLC  
C/o Pure Energy Resources, LLC  
25 Mall Road, Suite 100  
Burlington, Massachusetts 01803

ACTIVITY: Discharge fill material into waters of the United States to facilitate the installation, by hydraulic jet plow, a submarine electric transmission cable, and perform minor dredging activities with upland disposal and return flow to the waterway.

WATERWAY: Upper New York Harbor and Gowanus Bay

LOCATION: City of Bayonne, Hudson County, New Jersey and the City of Brooklyn, Kings County, New York.

A detailed description and plans of the applicant's activity are enclosed to assist in your review.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

**ALL COMMENTS REGARDING THE PERMIT APPLICATION MUST BE PREPARED IN WRITING AND MAILED TO REACH THIS OFFICE BEFORE THE EXPIRATION DATE OF THIS NOTICE**, otherwise, it will be presumed that there are no objections to the activity.

CENAN-OP-RW  
PUBLIC NOTICE NO. NAN-2008-1564

Any person may request, in writing, before this public notice expires, that a public hearing be held to collect information necessary to consider this application. Requests for public hearings shall state, with particularity, the reasons why a public hearing should be held. It should be noted that information submitted by mail is considered just as carefully in the permit decision process and bears the same weight as that furnished at a public hearing.

Our preliminary determination is that the activity for which authorization is sought herein is not likely to affect any Federally endangered or threatened species or their critical habitat. However, pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the District Engineer is consulting with the appropriate Federal agency to determine the presence of and potential impacts to listed species in the project area or their critical habitat.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act (Public Law 104-267), requires all Federal agencies to consult with the National Oceanic and Atmospheric Administration Fisheries Service (NOAA/FS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). Information regarding the proposed work that would be undertaken is given in the attached Description of Proposed Work. Based on a preliminary review of the proposal and the "Guide to Essential Fish Habitat Designations in the Northeastern United States", issued by the National Oceanic and Atmospheric Administration/National Marine Fisheries Service, the EFH for several aquatic species and their life stages in the proposed project area could potentially be impacted by the proposed work. Further consultation with the NOAA/FS regarding EFH impacts and conservation recommendations is being conducted and will be concluded prior to a final decision on the application.

Based upon a review of the latest published version of the National Register of Historic Places, there are no known sites eligible for, or included in, the Register within the permit area. Presently unknown archeological, scientific, prehistorical, or historical data may be lost by work accomplished under the required permit.

Reviews of activities pursuant to Section 404 of the Clean Water Act will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 (b) of the Clean Water Act and the applicant will obtain a water quality certificate or waiver from the appropriate state agency in accordance with Section 401 of the Clean Water Act prior to a permit decision.

Pursuant to Section 307 (c) of the Coastal Zone Management Act of 1972 as amended [16 U.S.C. 1456 (c)], for activities under consideration that are located within the coastal zone of a state which has a federally approved coastal zone management program, the applicant has certified in the permit application that the activity complies with, and will be conducted in a manner that is consistent with, the approved state coastal zone management program. By this public notice, we are requesting the state's concurrence with, objection to, or waiver of the applicant's certification. No permit decision will be made until one of these actions occurs. For activities within the coastal zone of New Jersey State, the applicant's certification and accompanying information is available from the New Jersey Department of Environmental Protection, Coastal Management Program, P.O. Box 418, 401 E. State Street, Trenton, NJ, 08625, Telephone (609) 633-2201. For activities within the coastal zone of New York State, the applicant's certification and accompanying information is available from the Consistency Coordinator, New York State Department of State, Division of Coastal Resources and Waterfront Revitalization, Coastal Zone Management Program, One Commerce Plaza, 99 Washington Avenue, Albany, New York 12231, Telephone (518) 474-6000. Comments regarding the applicant's certification, and copies of any letters to this office commenting upon this proposal, should be so addressed.

In addition to any required water quality certificate and coastal zone management program concurrence, the applicant has obtained or requested the following governmental authorization for the activity under consideration:

- New Jersey Department of Environmental Protection Waterfront Development Permit
- New York State Department of Environmental Conservation Article 15 and 25 Permit
- New York City Department of City Planning

It is requested that you communicate the foregoing information concerning the activity to any persons known by you to be interested and who did not receive a copy of this notice. If you have any questions concerning this application, you may contact this office at (917) 790-8412 and ask for James Cannon.

CENAN-OP-RW  
PUBLIC NOTICE NO. NAN-2008-1564

For more information on New York District Corps of Engineers programs, visit our website at <http://www.nan.usace.army.mil>

*Christopher J. Galler*  
for Richard L. Tomer  
Chief, Regulatory Branch

Enclosures

CENAN-OP-RW  
PUBLIC NOTICE NO. NAN-2008-1564

WORK DESCRIPTION

The applicant, Bayonne Energy Center LLC (BEC), has requested Department of the Army authorization to install a new 6.4-mile long 345 kilovolt alternating current (AC) submarine electric transmission cable that would extend beneath the Kill Van Kull, Upper New York Bay, and Gowanus Bay between the proposed BEC site located in the City of Bayonne, Hudson County, New Jersey, and the Con Edison Gowanus Substation in the City of Brooklyn, Kings County, New York. The submarine cable alignment would extend beneath several Federal Navigation Channels and established anchorage areas along its proposed alignment and would support the construction, operation, and maintenance of the new 512 megawatt BEC electric generating facility to be located in the City of Bayonne.

Approximately 6.3 miles of the 6.4 mile submarine transmission cable would be installed beneath the Kill Van Kull, Upper New York Bay, and Gowanus Bay by hydraulic jet plow embedment (buried). The applicant has indicated that Jet plow embedment would allow for the simultaneous laying and burying of the submarine transmission cable to the target burial depth with minimal bottom disturbance and with much of the fluidized sediment settling back into the trench. The proposed submarine transmission cable, consisting of three 4.9-inch diameter single core AC cables, would each be installed in its own trench with 33 feet of separation between each of the three cable trenches.

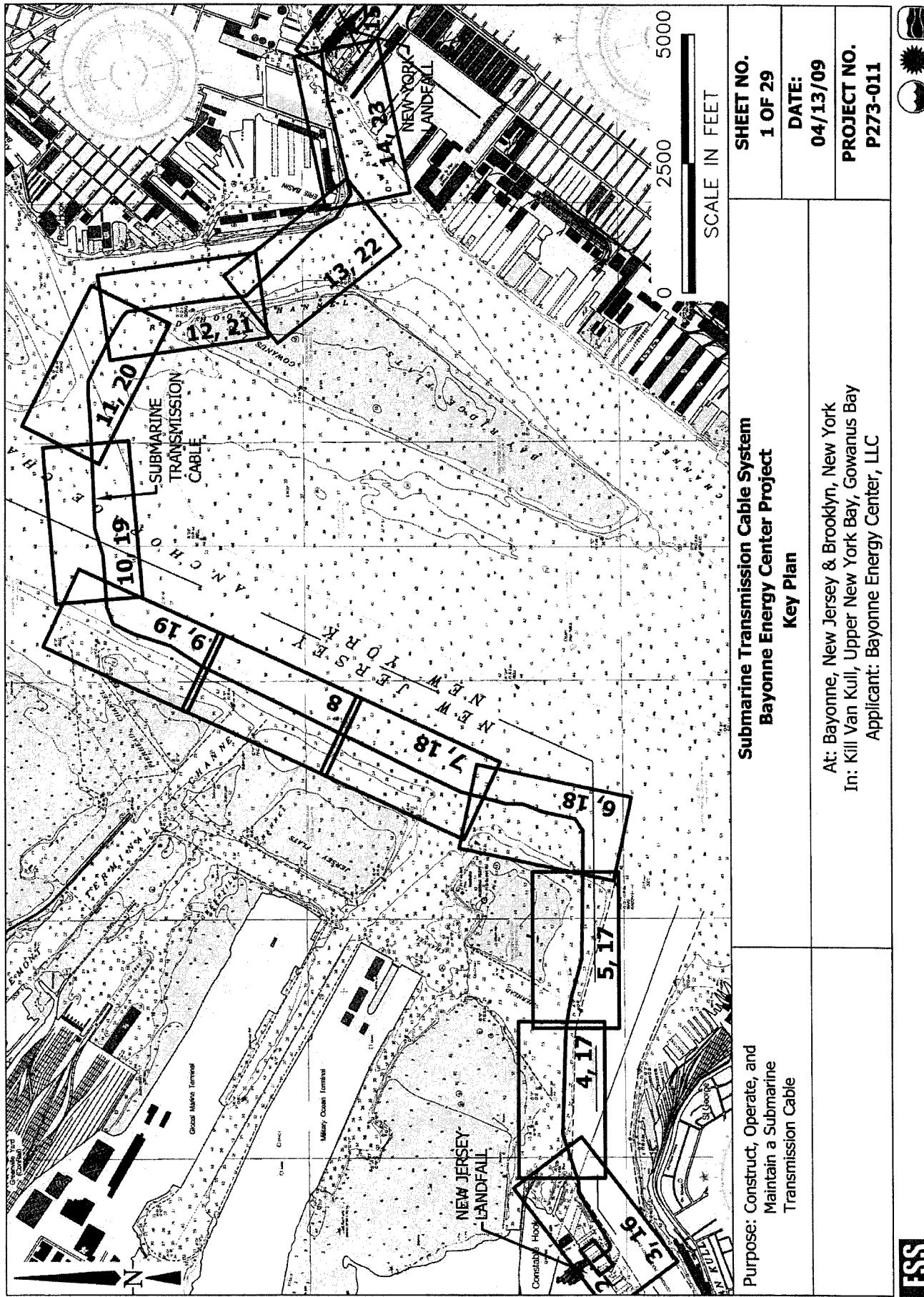
From the proposed BEC facility in New Jersey (upland), the proposed submarine transmission cable alignment would extend beneath and along the following Federal Navigation Channels and established anchorage areas at a target burial depth of 15 feet below present bottom at the time of installation:

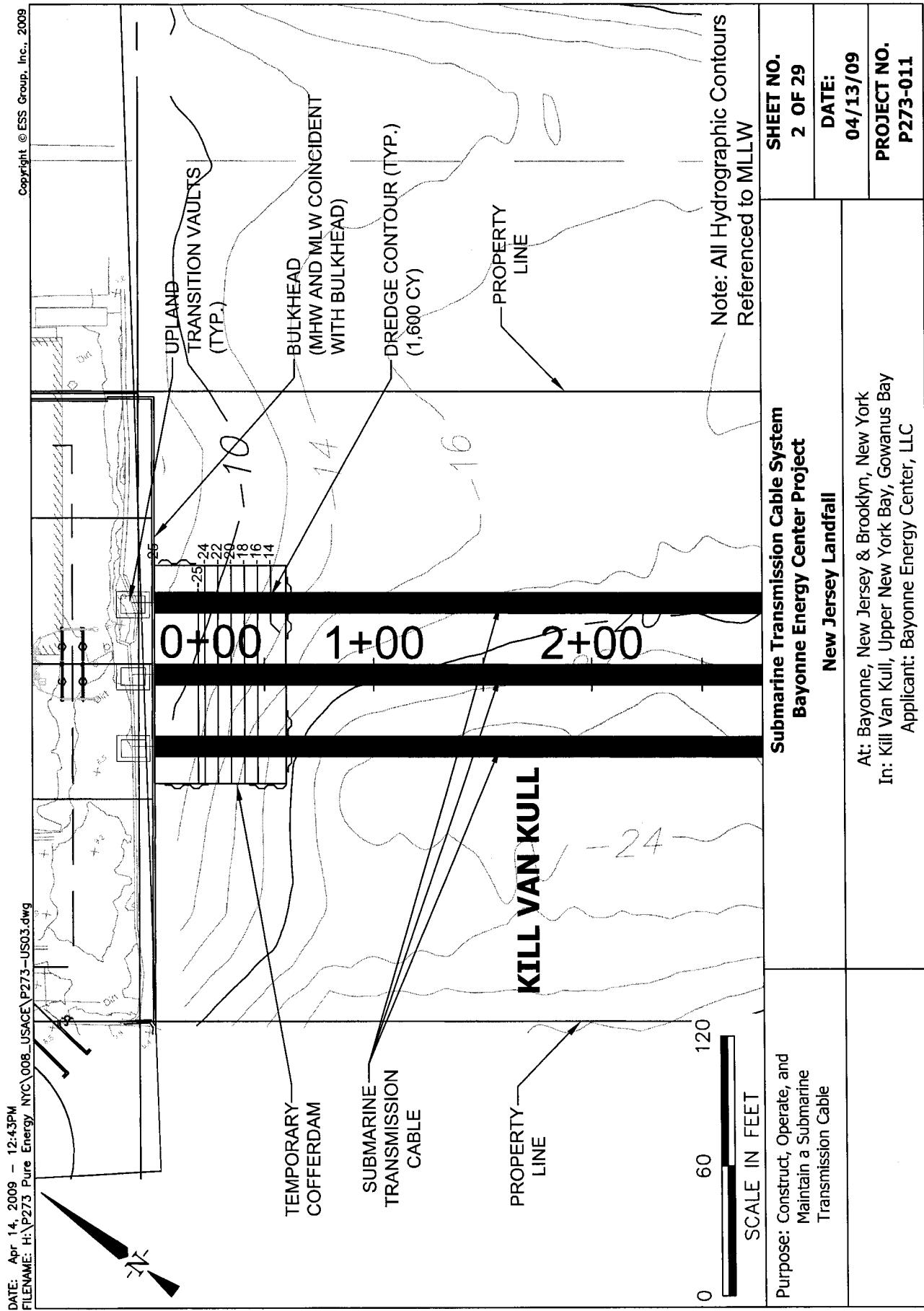
- Kill Van Kull Federal Navigation Channel, (-50 foot Mean Low Water (MLW) authorized depth plus 2 foot overdredge);
- Pierhead Federal Navigation Channel (-40 foot MLW authorized depth plus 2 foot overdredge);
- Port Jersey Federal Navigation Channel (-50 foot MLW authorized depth plus 2 foot overdredge);
- Anchorage Federal Navigation Channel (-45 foot MLW authorized depth plus 2 foot overdredge);
- Buttermilk Federal Navigation Channel (-40 foot MLW authorized depth plus 2 foot overdredge);
- Red Hook/Bay Ridge Federal Navigation Channels (-40 foot MLW authorized depth plus 2 foot overdredge);
- Gowanus Creek Federal Navigation Channel (-30 foot MLW authorized depth plus 2 foot overdredge); and
- Charted anchorage areas designated as 20G, 20F and 20E.

Additional activities would include the temporary construction of two temporary steel sheet cofferdams landward of the Pierhead Lines in Bayonne and Brooklyn. The first, a 100 foot wide by 60 foot long cofferdam, would be installed adjacent to the New Jersey landfall location within the Kill Van Kull, and the second, a 100 foot by 50 foot cofferdam, would be installed adjacent to the New York landfall within the Gowanus Bay. The temporary installation of both cofferdams would facilitate the installation of the submarine transmission cable to underground vaults at each proposed landfall upland site facilities. Horizontal directional drilling (HDD) would be used at the Brooklyn Landfall, with the HDD staging area on the upland. Upon completion of the cofferdam installation, approximately 1,600 cubic yards of sediments would be dredged from the New Jersey side cofferdam, and approximately 1,900 cubic yards of sediment would be dredged from the New York side cofferdam. Dredging would be accomplished by the use of an environmental clamshell bucket. All dredged sediments would be held in a separate water-tight decant barge to allow sediment settling for a minimum 24 hour period prior to discharging the decanted channel water back into the waterway within the temporary cofferdam area. All dredged sediments would be disposed of at an approved upland site. Once submarine transmission cable work within the temporary cofferdams is complete, the temporary cofferdams would be removed and the areas within the temporary cofferdams would be returned to pre-construction elevations by the placement of approximately 1,600 cubic yards of clean sand on the New Jersey side and approximately 1,900 cubic yards of clean sand on the New York side. In addition, concrete mattresses, approximately 8-foot wide by 1,040 foot long, would be placed over each of the three cable trenches at a location adjacent to the New Jersey landfall area.

The applicant has stated that the siting of the submarine transmission cable route was developed through evaluations of alternative landfall locations and routes as well as through consultations with the Harbor Safety, Operations, and Navigation Committee of New York and New Jersey; the U.S. Army Corps of Engineers and the U.S. Coast Guard.

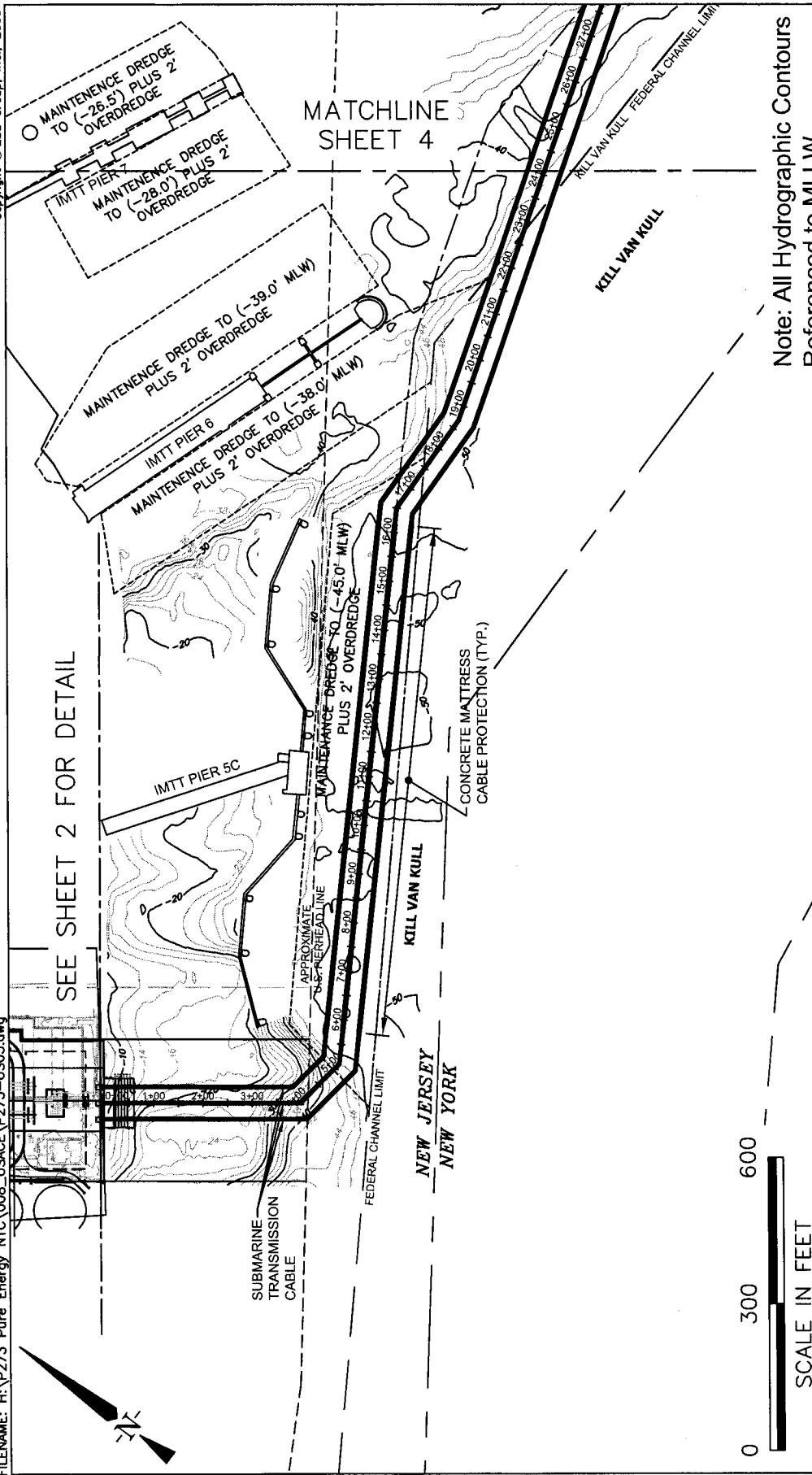
The stated purpose of the Bayonne Energy Center facility is to meet the growing intermediate, mid-merit (daily diurnal cycling) demand for electricity in the New York City area.





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Note: All Hydrographic Contours  
Referenced to MLLW

Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable	<b>Submarine Transmission Cable System</b> <b>Bayonne Energy Center Project</b>
	<p>At: Bayonne, New Jersey &amp; Brooklyn, New York In: Kill Van Kull, Upper New York Bay, Gowanus Bay Applicant: Bayonne Energy Center, LLC</p>

**SHEET NO.**  
**3 OF 29**

**DATE:**

**04/13/09**

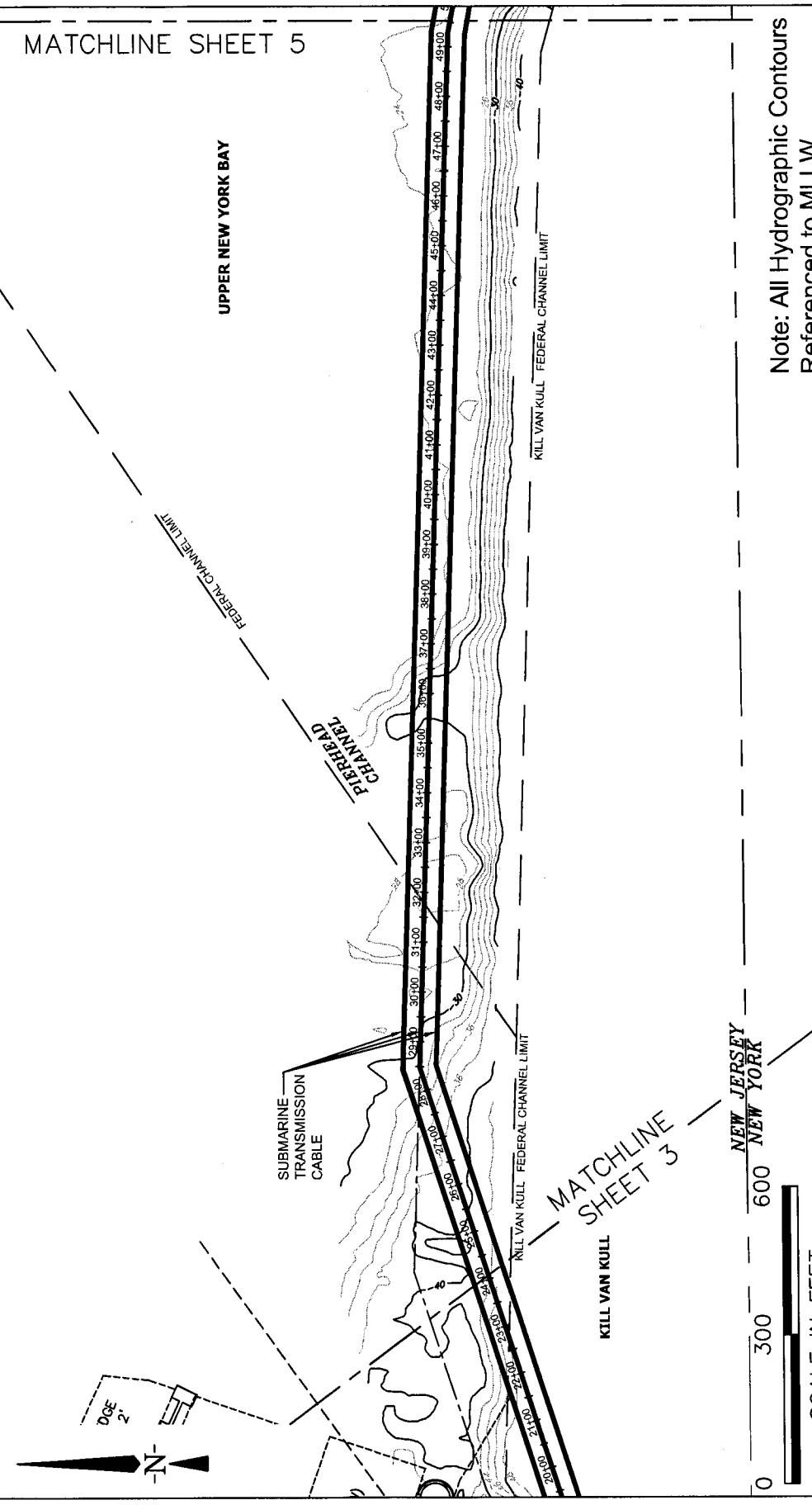
**PROJECT NO.**  
**P273-011**



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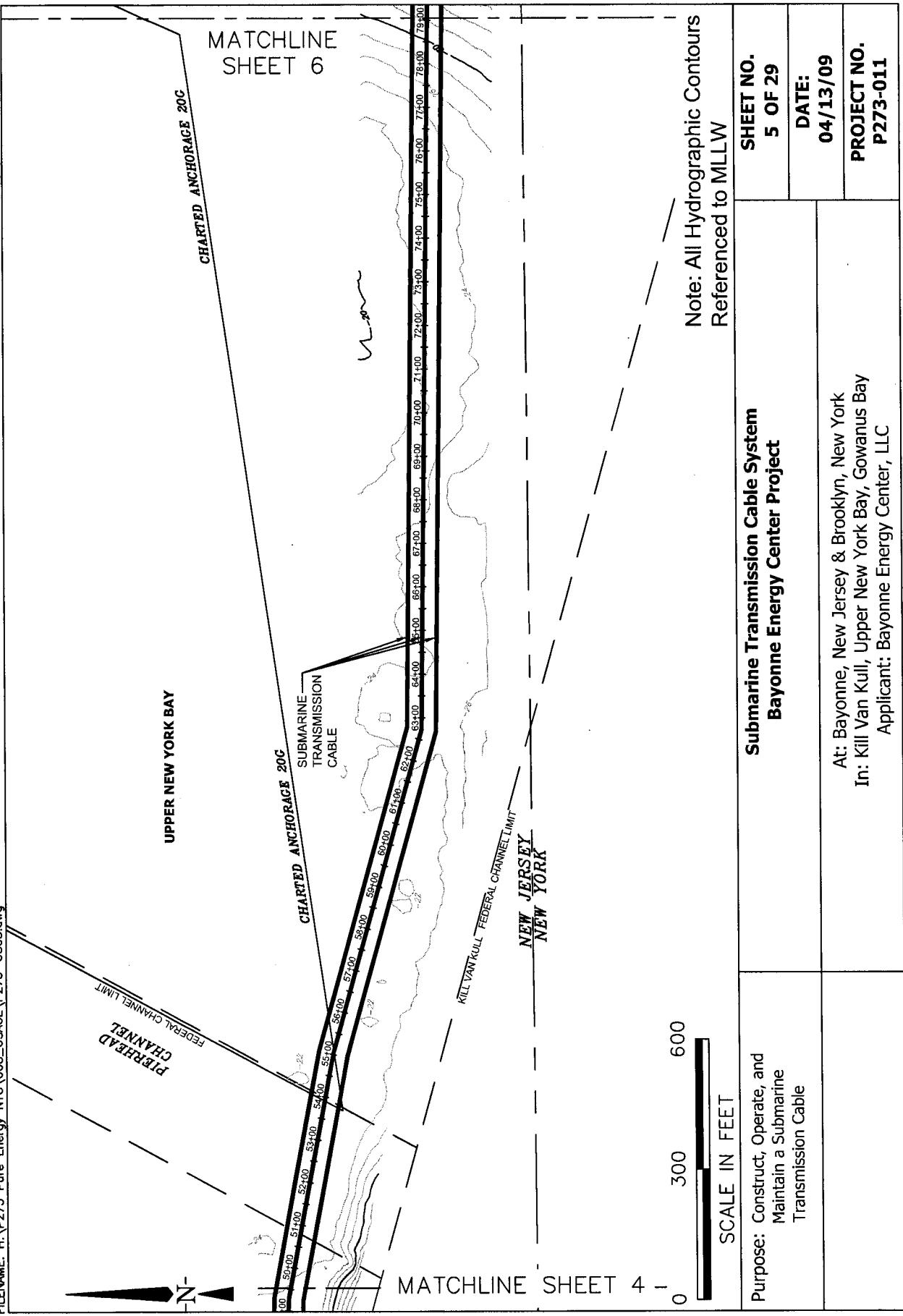
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## MATCHLINE SHEET 5



Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable	<b>Submarine Transmission Cable System</b> <b>Bayonne Energy Center Project</b>	<b>SHEET NO.</b> 4 OF 29	<b>DATE:</b> 04/13/09
At: Bayonne, New Jersey & Brooklyn, New York In: Kill Van Kull, Upper New York Bay, Gowanus Bay Applicant: Bayonne Energy Center, LLC	<b>PROJECT NO.</b> P273-011		

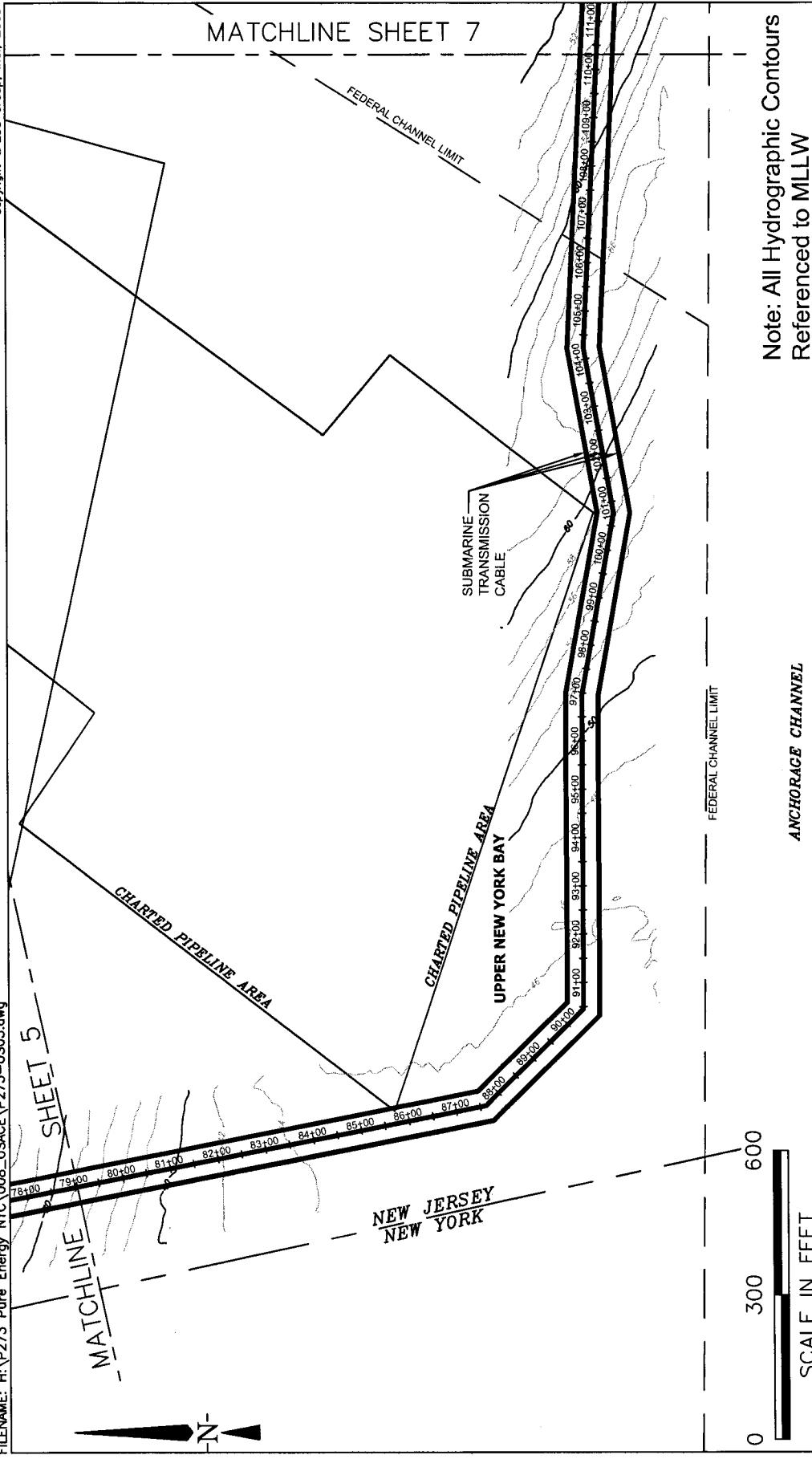




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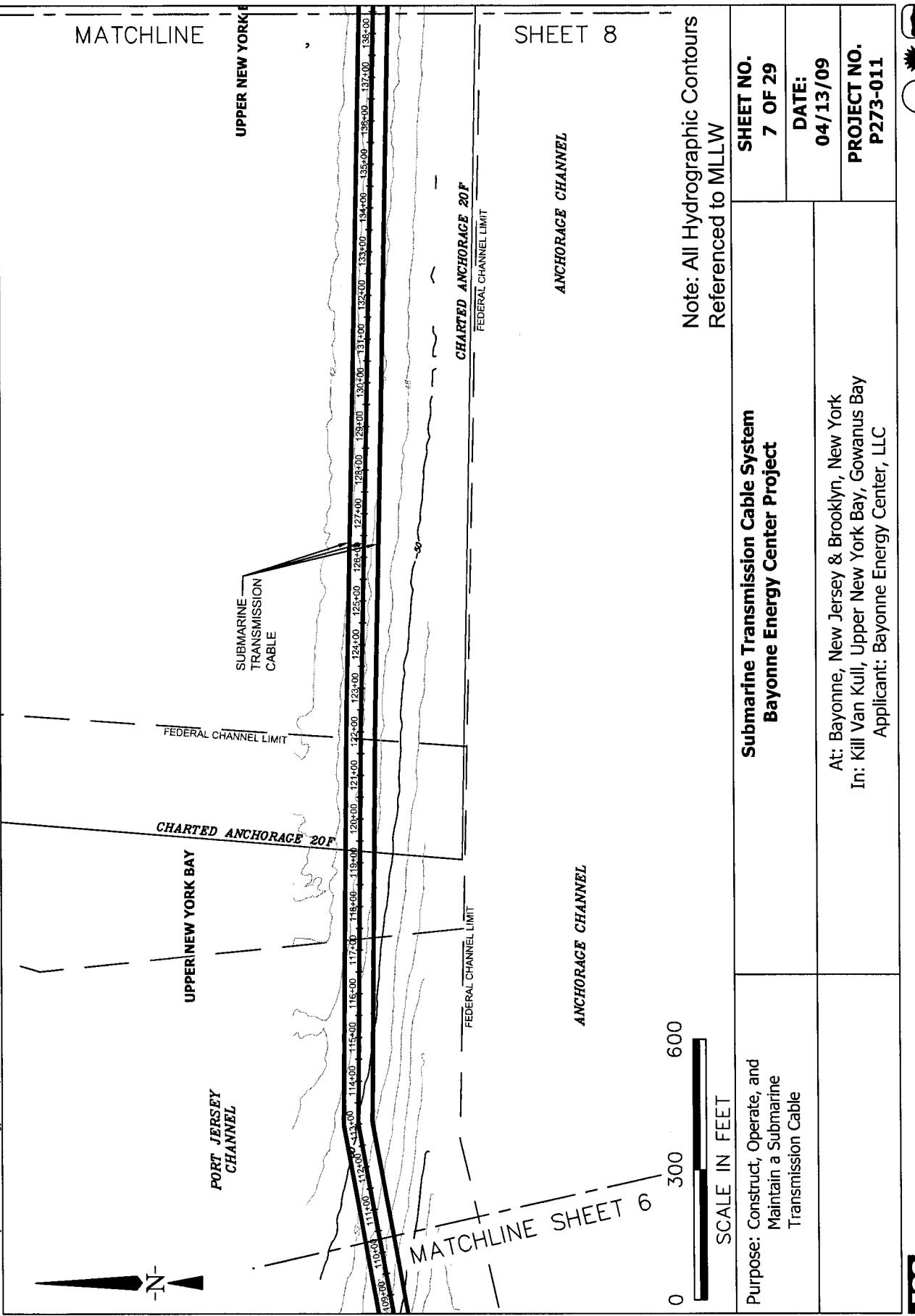
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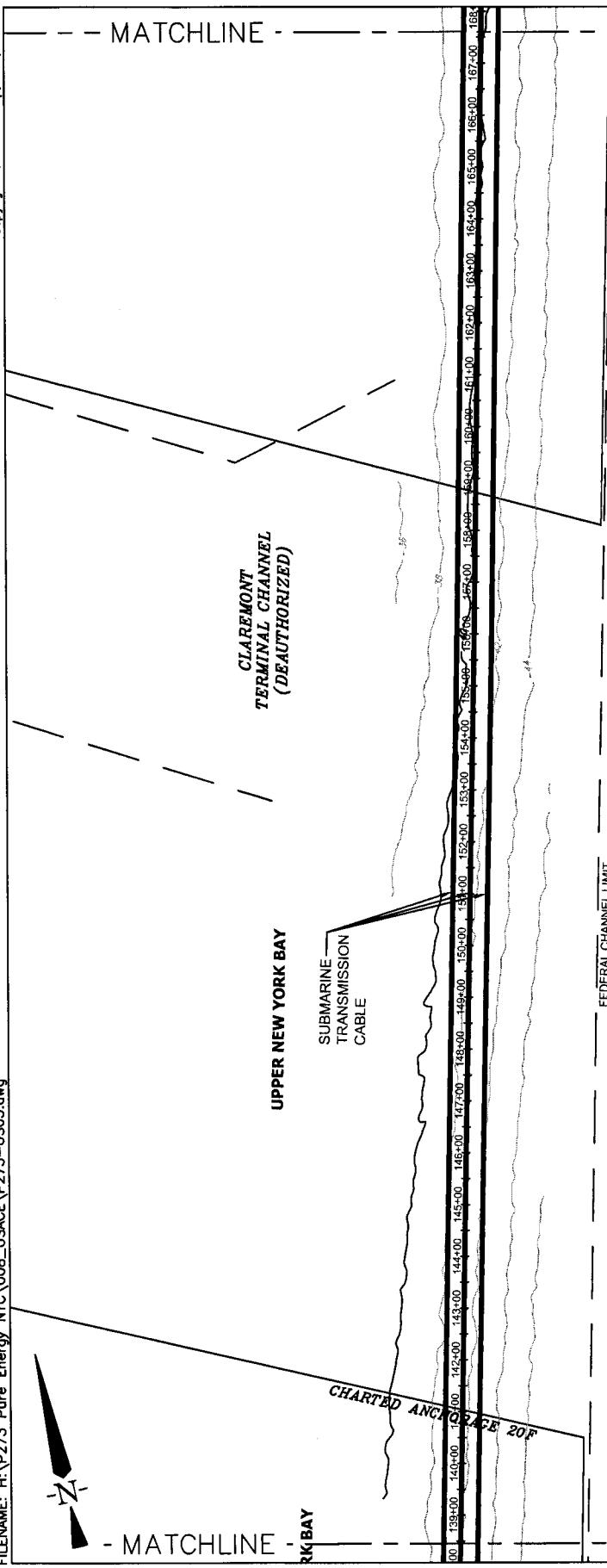
# MATCHLINE SHEET 7



Note: All Hydrographic Contours  
Referenced to MLLW

Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable	SHEET NO. 6 OF 29
Submarine Transmission Cable System Bayonne Energy Center Project	DATE: 04/13/09
At: Bayonne, New Jersey & Brooklyn, New York In: Kill Van Kull, Upper New York Bay, Gowanus Bay Applicant: Bayonne Energy Center, LLC	PROJECT NO. P273-011





SHEET 7

SHEET 9

0 300 600

SCALE IN FEET

Purpose: Construct, Operate, and  
Maintain a Submarine  
Transmission Cable

**Submarine Transmission Cable System  
Bayonne Energy Center Project**

SHEET NO.

8 OF 29

DATE:

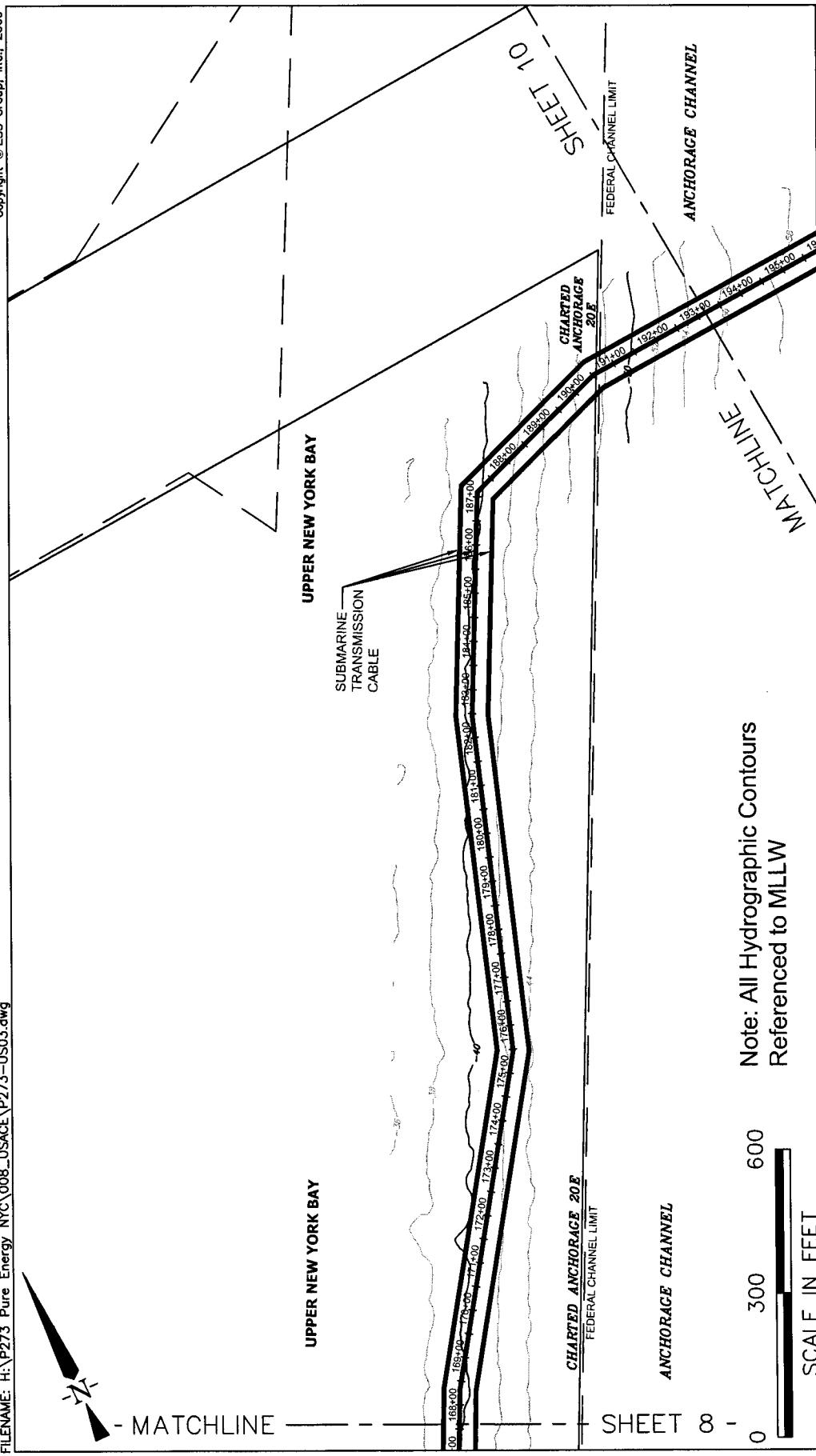
04/13/09

PROJECT NO.  
P273-011

**ESS**  
GROUP INC.



Note: All Hydrographic Contours  
Referenced to MLLW

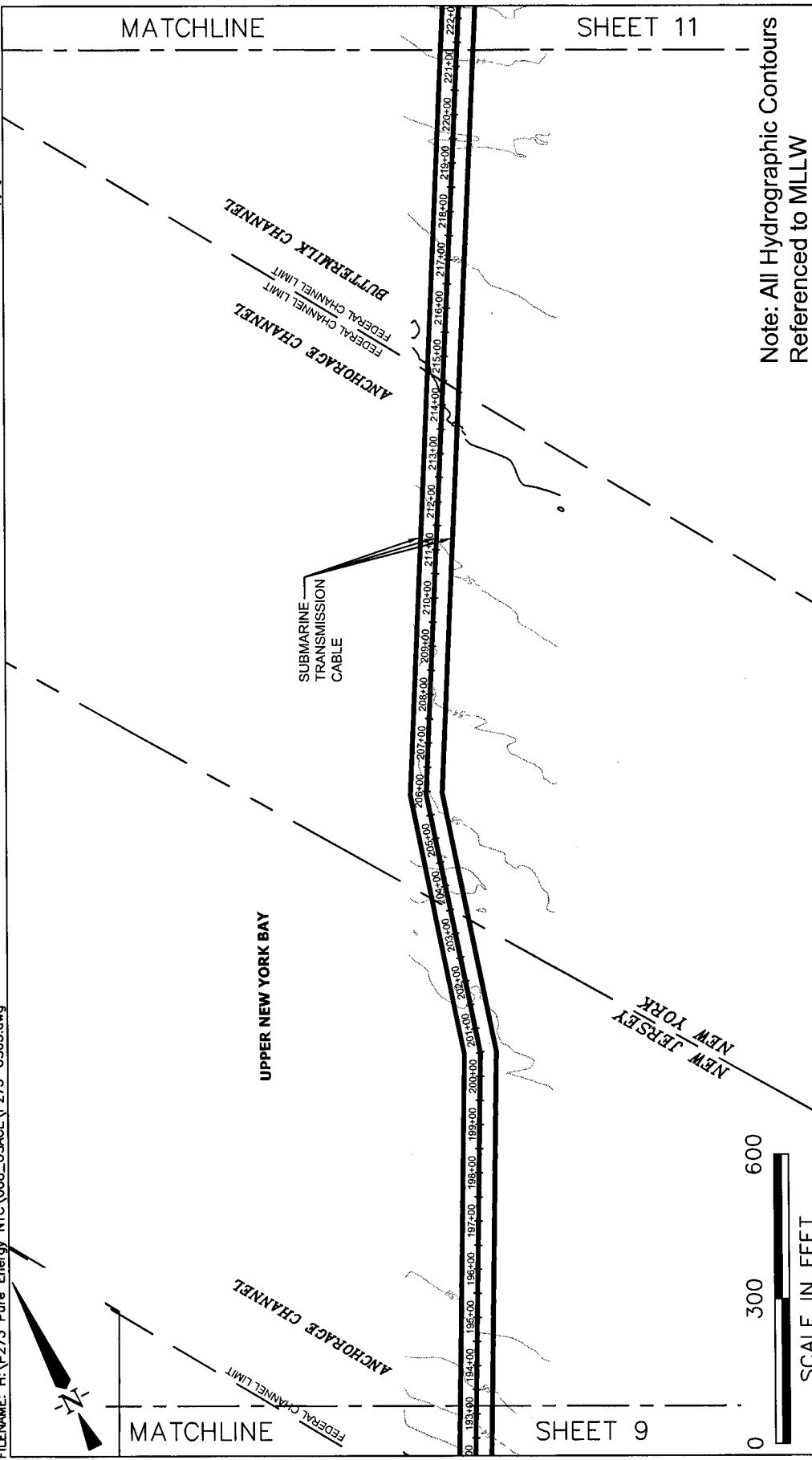


Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable	<b>Submarine Transmission Cable System</b> <b>Bayonne Energy Center Project</b>	<b>SHEET NO.</b> <b>9 OF 29</b>
	At: Bayonne, New Jersey & Brooklyn, New York In: Kill Van Kull, Upper New York Bay, Gowanus Bay Applicant: Bayonne Energy Center, LLC	<b>DATE:</b> <b>04/13/09</b> <b>PROJECT NO.</b> <b>P273-011</b>



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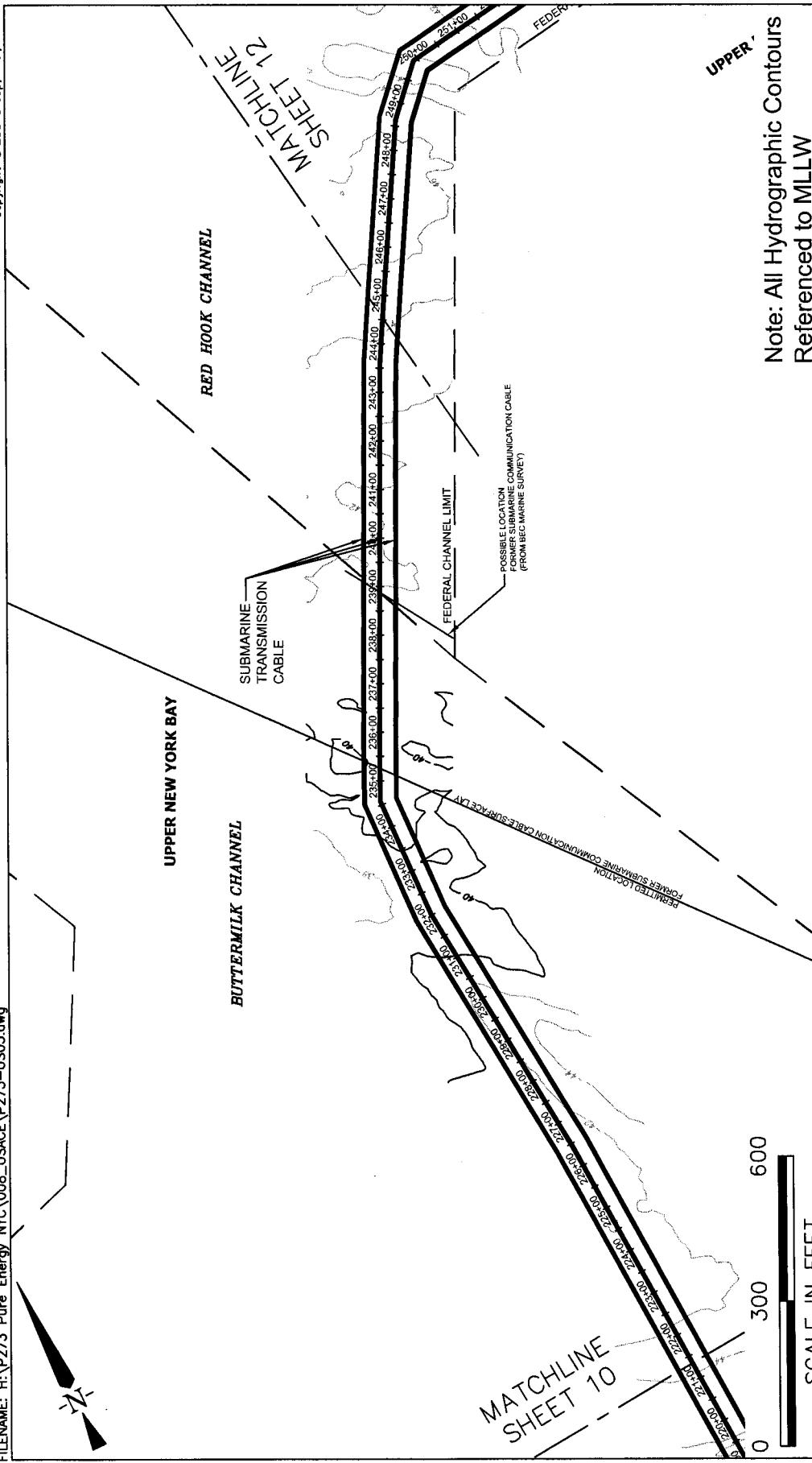


Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable	<b>Submarine Transmission Cable System</b> <b>Bayonne Energy Center Project</b>	<b>SHEET NO.</b> <b>10 OF 29</b>	<b>DATE:</b> <b>04/13/09</b>	<b>PROJECT NO.</b> <b>P273-011</b>
At: Bayonne, New Jersey & Brooklyn, New York In: Kill Van Kull, Upper New York Bay, Gowanus Bay Applicant: Bayonne Energy Center, LLC				



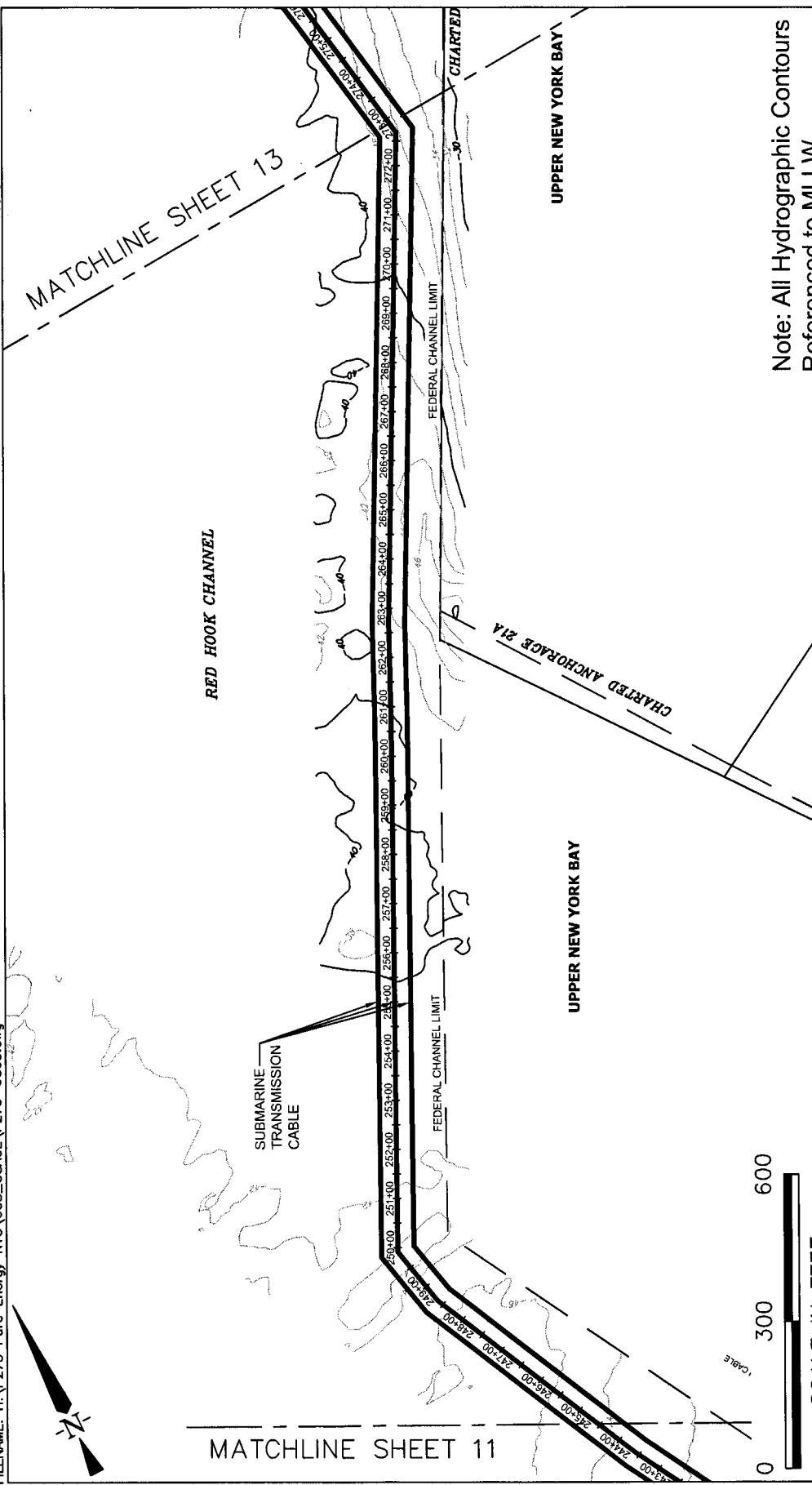
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<p>Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable</p>	<p><b>Submarine Transmission Cable System</b> <b>Bayonne Energy Center Project</b></p>	<p>Note: All Hydrographic Contours Referenced to MLLW</p>
		<p><b>SHEET NO.</b> <b>11 OF 29</b></p>
		<p><b>DATE:</b> <b>04/13/09</b></p>
		<p><b>PROJECT NO.</b> <b>P273-011</b></p>





Note: All Hydrographic Contours  
Referenced to MLLW

<b>Purpose:</b> Construct, Operate, and Maintain a Submarine Transmission Cable	<b>Submarine Transmission Cable System</b> <b>Bayonne Energy Center Project</b>
	<p>At: Bayonne, New Jersey &amp; Brooklyn, New York In: Kill Van Kull, Upper New York Bay, Gowanus Bay Applicant: Bayonne Energy Center, LLC</p>

**SHEET NO.**  
**12 OF 29**

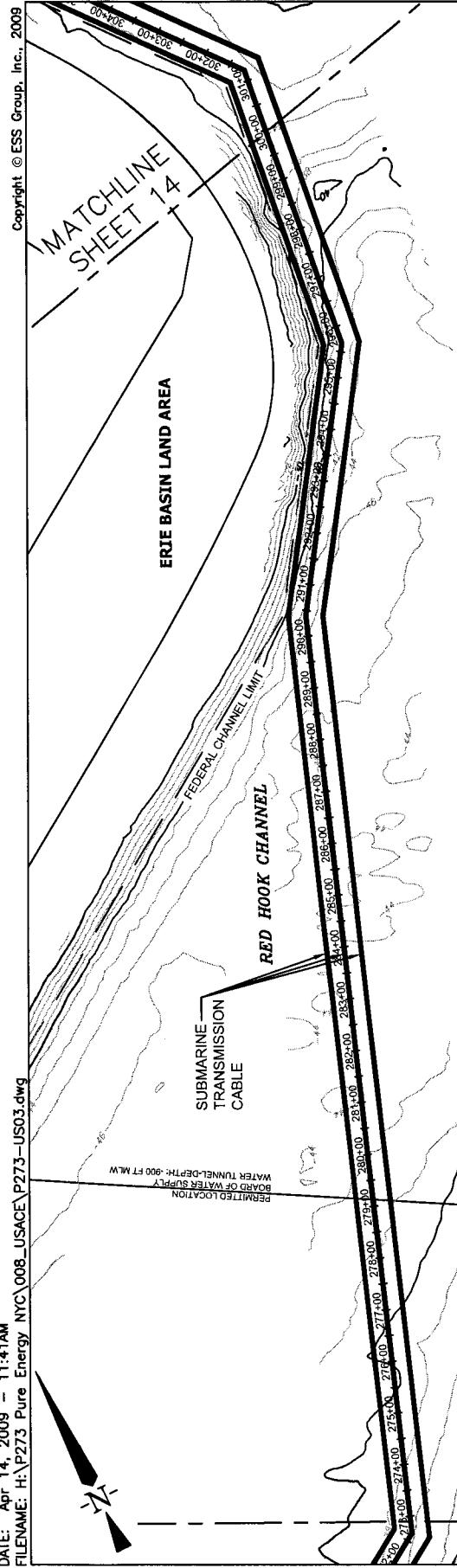
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**04/13/09**

**PROJECT NO.**  
**P273-011**



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MATCHLINE SHEET 12

RED HOOK CHANNEL

UPPER NEW YORK BAY

0 200 400

SCALE IN FEET

Purpose: Construct, Operate, and  
Maintain a Submarine  
Transmission Cable

**Submarine Transmission Cable System**  
**Bayonne Energy Center Project**

Note: All Hydrographic Contours  
Referenced to MLLW

SHEET NO.  
13 OF 29

DATE:

04/13/09

PROJECT NO.  
P273-011

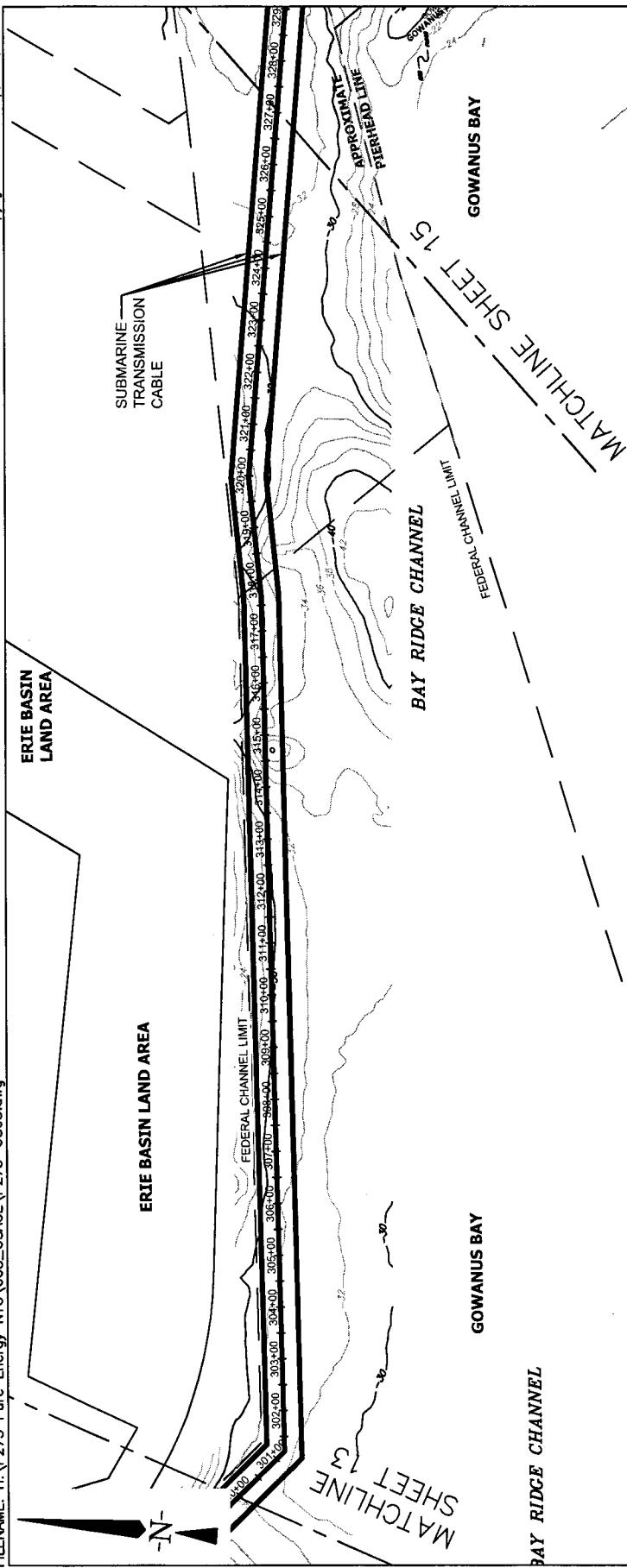
At: Bayonne, New Jersey & Brooklyn, New York  
In: Kill Van Kull, Upper New York Bay, Gowanus Bay  
Applicant: Bayonne Energy Center, LLC

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Group Inc.



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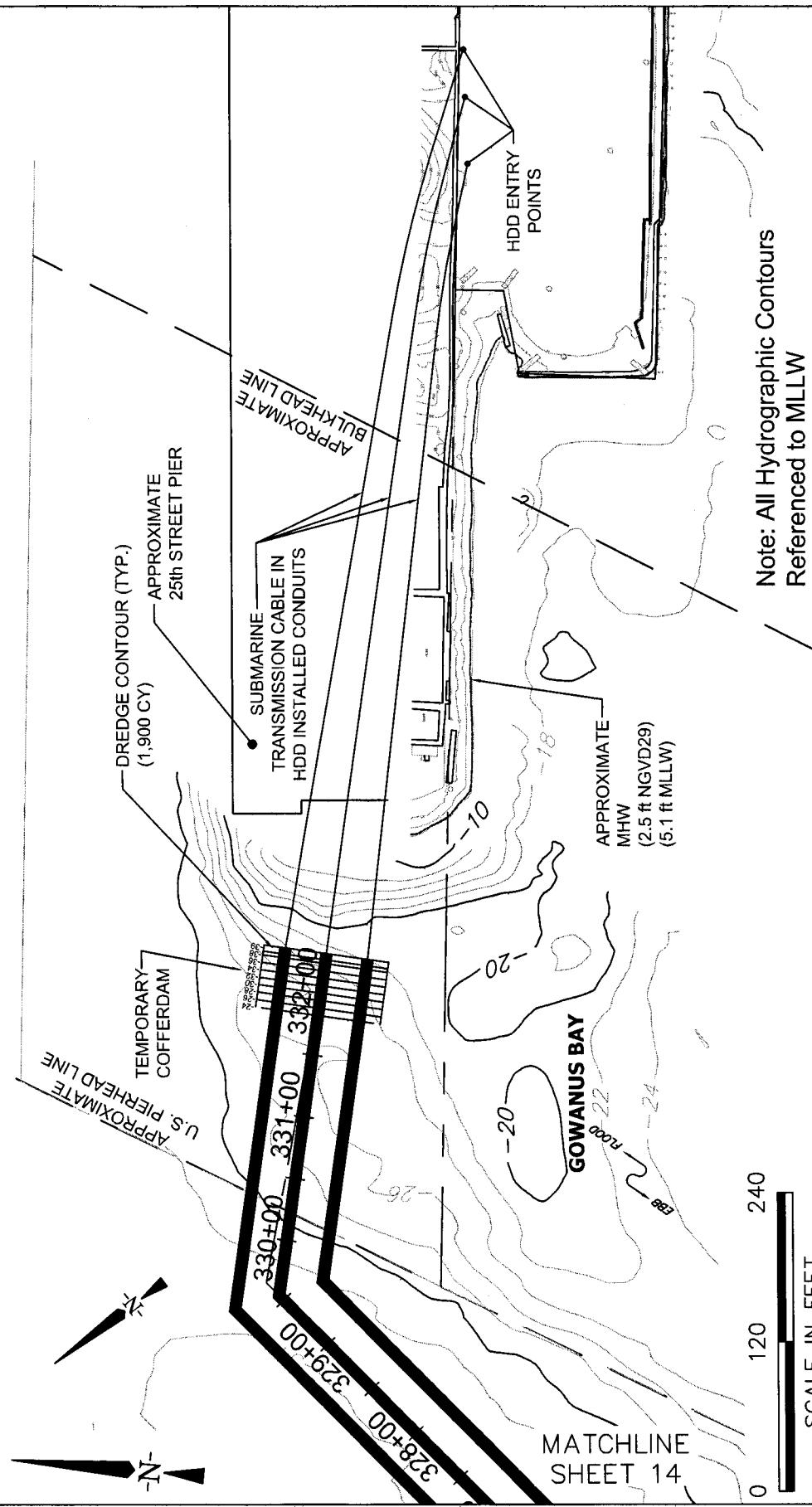
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Note: All Hydrographic Contours  
Referenced to MLLW

Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable	<b>Submarine Transmission Cable System</b> <b>Bayonne Energy Center Project</b>	<b>SHEET NO.</b> 14 OF 29
		<b>DATE:</b> 04/13/09
		<b>PROJECT NO.</b> P273-011





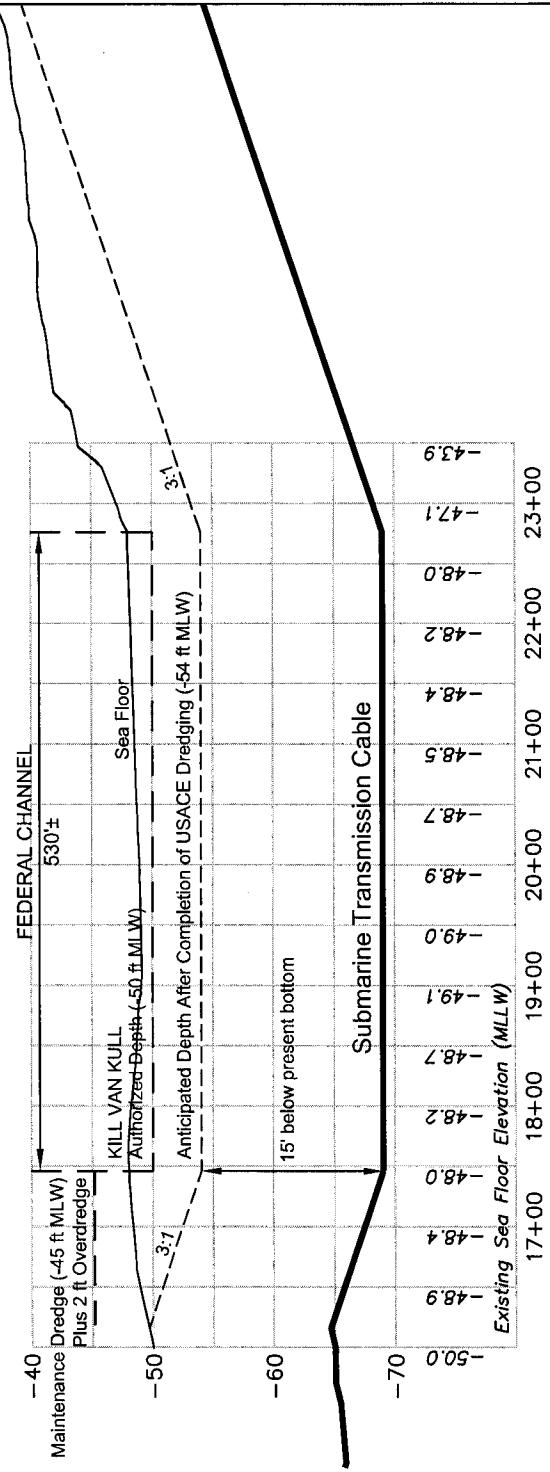
Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable	<b>Submarine Transmission Cable System</b> <b>Bayonne Energy Center Project</b>	<b>SHEET NO.</b> <b>15 OF 29</b>
At: Bayonne, New Jersey & Brooklyn, New York In: Kill Van Kull, Upper New York Bay, Gowanus Bay Applicant: Bayonne Energy Center, LLC	<b>DATE:</b> <b>04/13/09</b>	<b>PROJECT NO.</b> <b>P273-011</b>



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Hydrographic Contours Along The Submarine Transmission Cable  
Route Are Referenced To Mean Lower Low Water Based On NOAA  
Observed Tides At The Battery, New York (Station No. 8518750). These  
Contours Are From A Marine Survey Conducted For The BEC Project  
Between January 23, February 5, and August 7, 2008. These Represent  
Conditions Existing At That Time.



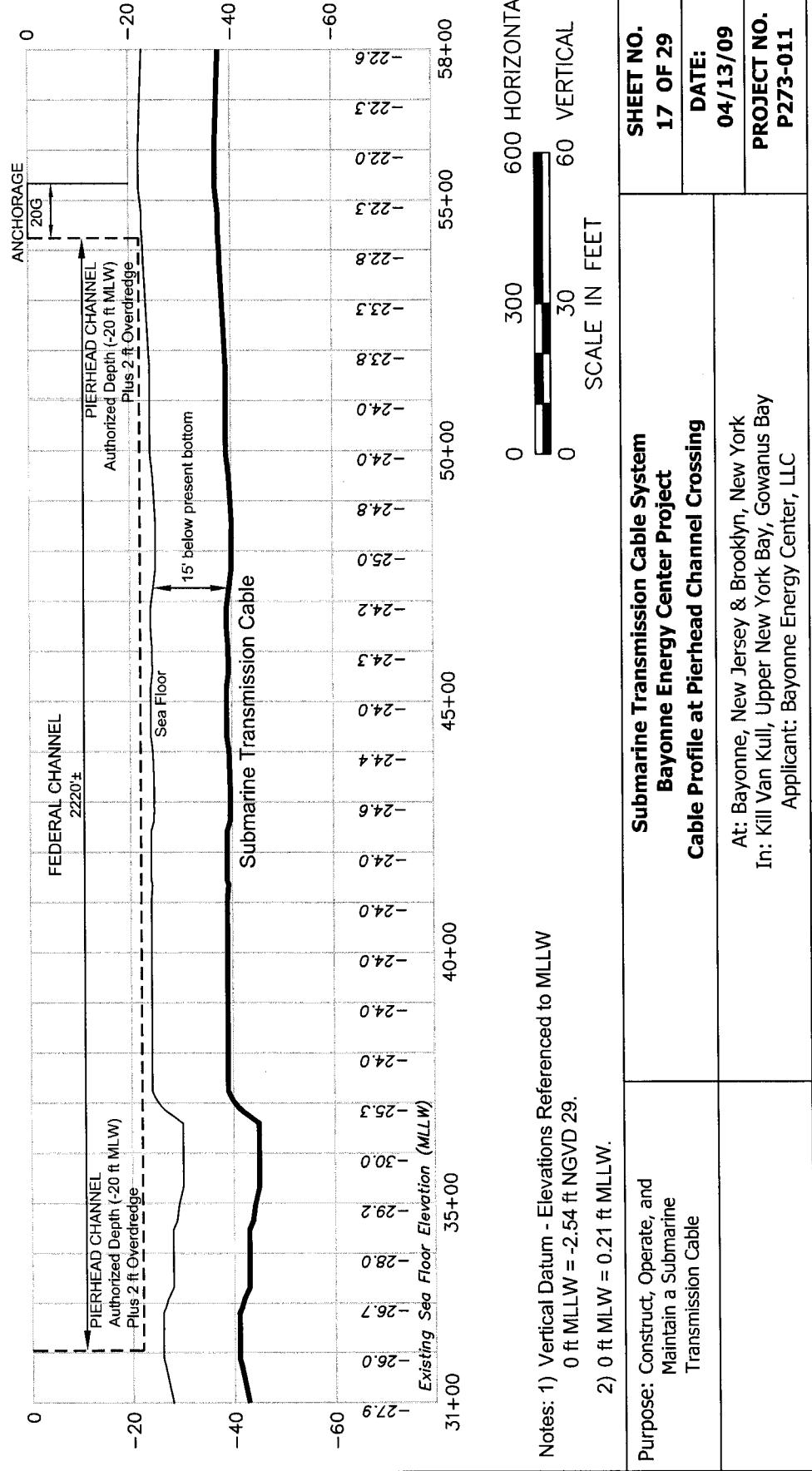
Notes: 1) Vertical Datum - Elevations Referenced to MLLW  
0 ft MLLW = -2.54 ft NGVD 29.  
2) 0 ft MLW = 0.21 ft MLLW.

0 150 300 HORIZONTAL  
0 15 30 VERTICAL

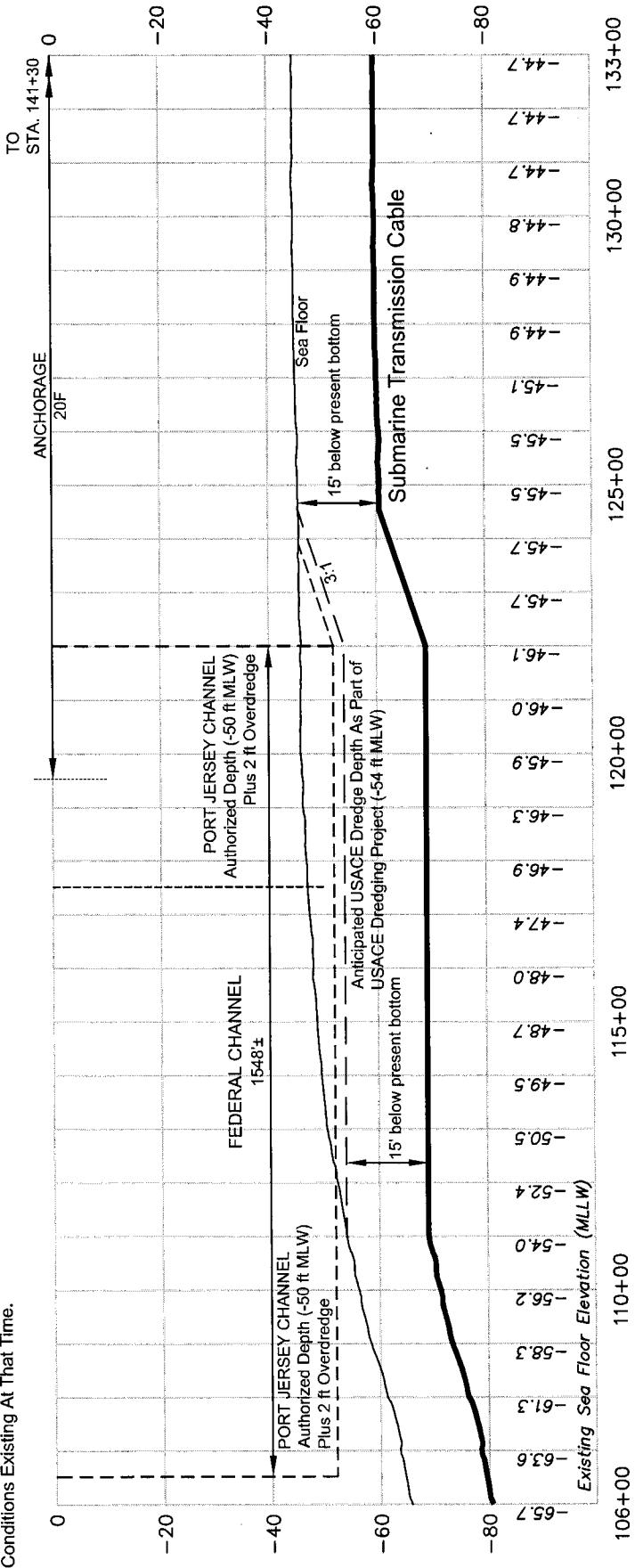
Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable	Submarine Transmission Cable System Bayonne Energy Center Project	
	SHEET NO. 16 OF 29	SCALE IN FEET
	DATE: 04/13/09	PROJECT NO. P273-011



Hydrographic Contours Along The Submarine Transmission Cable  
 Route Are Referenced To Mean Lower Low Water Based On NOAA  
 Observed Tides At The Battery, New York (Station No. 8518750). These  
 Contours Are From A Marine Survey Conducted For The BEC Project  
 Between January 23, February 5, and August 7, 2008. These Represent  
 Conditions Existing At That Time.



Hydrographic Contours Along The Submarine Transmission Cable  
 Route Are Referenced To Mean Lower Low Water Based On NOAA  
 Observed Tides At The Battery, New York (Station No. 8518750). These  
 Contours Are From A Marine Survey Conducted For The BEC Project  
 Between January 23, February 5, and August 7, 2008. These Represent  
 Conditions Existing At That Time.



Notes: 1) Vertical Datum - Elevations Referenced to MLLW  
 0 ft MLLW = -2.54 ft NGVD 29.  
 2) 0 ft MLLW = 0.21 ft MLLW.

Purpose: Construct, Operate, and  
 Maintain a Submarine  
 Transmission Cable

Submarine Transmission Cable System  
 Bayonne Energy Center Project  
 Cable Profile at Port Jersey Channel Crossing

SHEET NO.  
**18 OF 29**

DATE:  
**04/13/09**

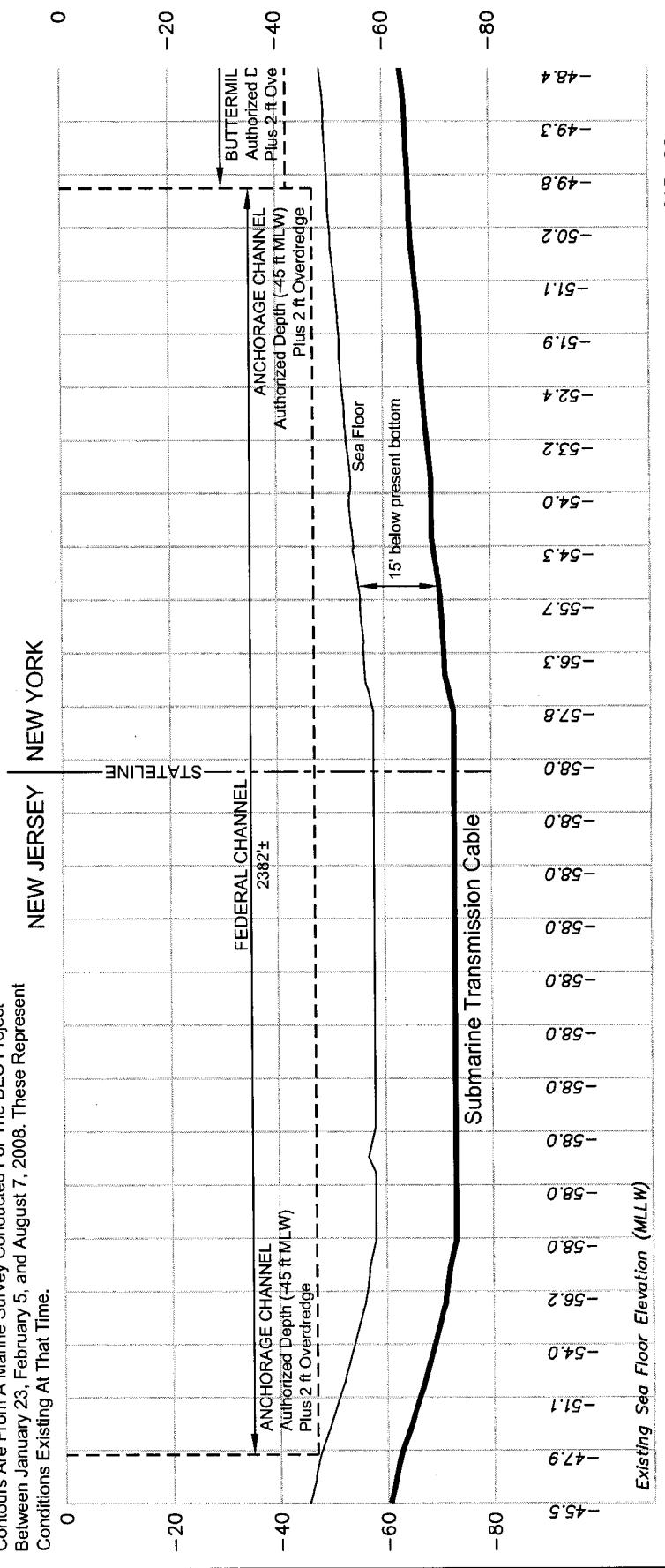
PROJECT NO.  
**P273-011**



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Hydrographic Contours Along The Submarine Transmission Cable Route Are Referenced To Mean Lower Low Water Based On NOAA Observed Tides At The Battery, New York (Station No. 8518750). These Contours Are From A Maine Survey Conducted For The BEC Project Between January 23, February 5, and August 7, 2008. These Represent Conditions Existing At That Time.

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**Notes:** 1) Vertical Datum - Elevations Referenced to MLLW  
0 ft MLLW = -2.54 ft NGVD 29.

$$2) \text{ 0 ft MLW} = 0.21 \text{ ft MLLW.}$$

Ergonomics in Design 200

# **Submarine Transmission Cable System Bayonne Energy Center Project Cable Profile Within Anchorage Channel Crossing**

At: Bayonne, New Jersey & Brooklyn, New York  
In: Kill Van Kull, Upper New York Bay, Gowanus Bay  
Applicant: Bayonne Energy Center, LLC

**PROJECT NO.**  
**P273-011**

SHEET NO.  
19 OF 29

**DATE:**  
**04/13/09**

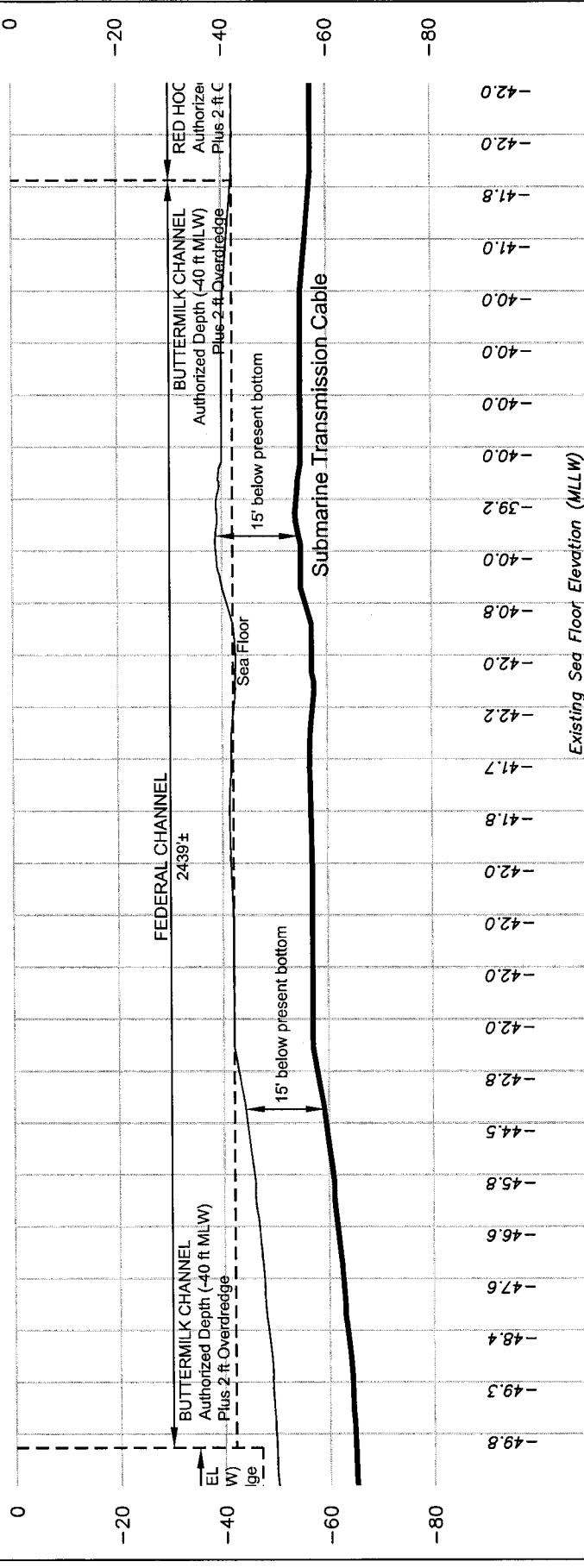
PROJECT NO  
P273-011



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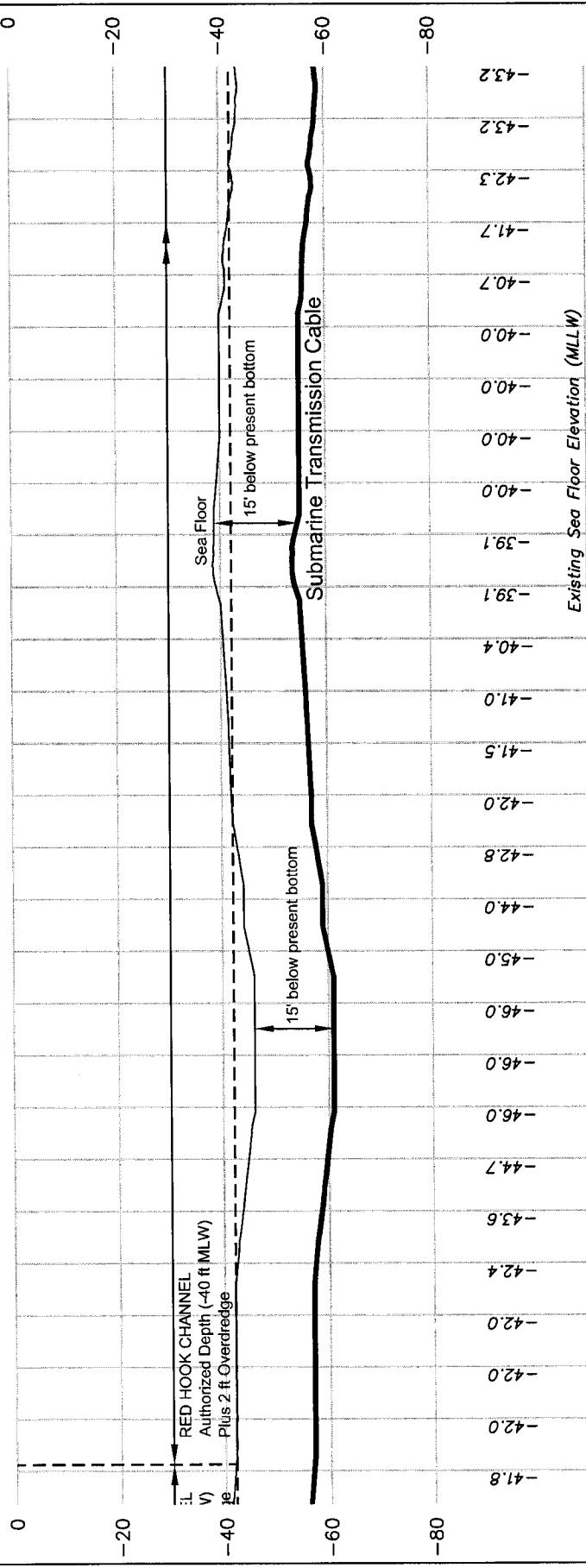
Hydrographic Contours Along The Submarine Transmission Cable  
 Route Are Referenced To Mean Lower Low Water Based On NOAA  
 Observed Tides At The Battery, New York (Station No. 8518750). These  
 Contours Are From A Marine Survey Conducted For The BEC Project  
 Between January 23, February 5, and August 7, 2008. These Represent  
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Notes: 1) Vertical Datum - Elevations Referenced to MLLW  
 0 ft MLLW = -2.54 ft NGVD 29.  
 2) 0 ft MLW = 0.21 ft MLLW.

215+00                    220+00                    225+00                    230+00                    235+00                    240+00  
 -49.8                    -47.6                    -45.8                    -44.5                    -42.8                    -40.8  
 -48.4                    -46.6                    -44.0                    -41.7                    -40.0                    -39.2  
 -47.6                    -45.8                    -44.0                    -41.8                    -40.0                    -39.2  
 -48.4                    -46.6                    -44.5                    -42.0                    -40.0                    -39.2  
 -47.6                    -45.8                    -44.0                    -41.7                    -40.0                    -39.2  
 -48.4                    -46.6                    -44.5                    -42.0                    -40.0                    -39.2  
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Hydrographic Contours Along The Submarine Transmission Cable  
 Route Are Referenced To Mean Lower Low Water Based On NOAA  
 Observed Tides At The Battery, New York (Station No. 8518750). These  
 Contours Are From A Marine Survey Conducted For The BEC Project  
 Between January 23, February 5, and August 7, 2008. These Represent  
 Conditions Existing At That Time.



Notes: 1) Vertical Datum - Elevations Referenced to MLLW  
 0 ft MLLW = -2.54 ft NGVD 29.  
 2) 0 ft MLLW = 0.21 ft MLLW.

	Existing Sea Floor Elevation (MLLW)	SCALE IN FEET
240+00	250+00	260+00
		300
	255+00	265+00
	0	600 HORIZONTAL
	30	60 VERTICAL

Purpose: Construct, Operate, and  
 Maintain a Submarine  
 Transmission Cable

**Submarine Transmission Cable System**  
**Bayonne Energy Center Project**  
**Cable Profile Within Red Hook Channel - 1 of 2**

SHEET NO.  
**21 OF 29**

DATE:  
**04/13/09**

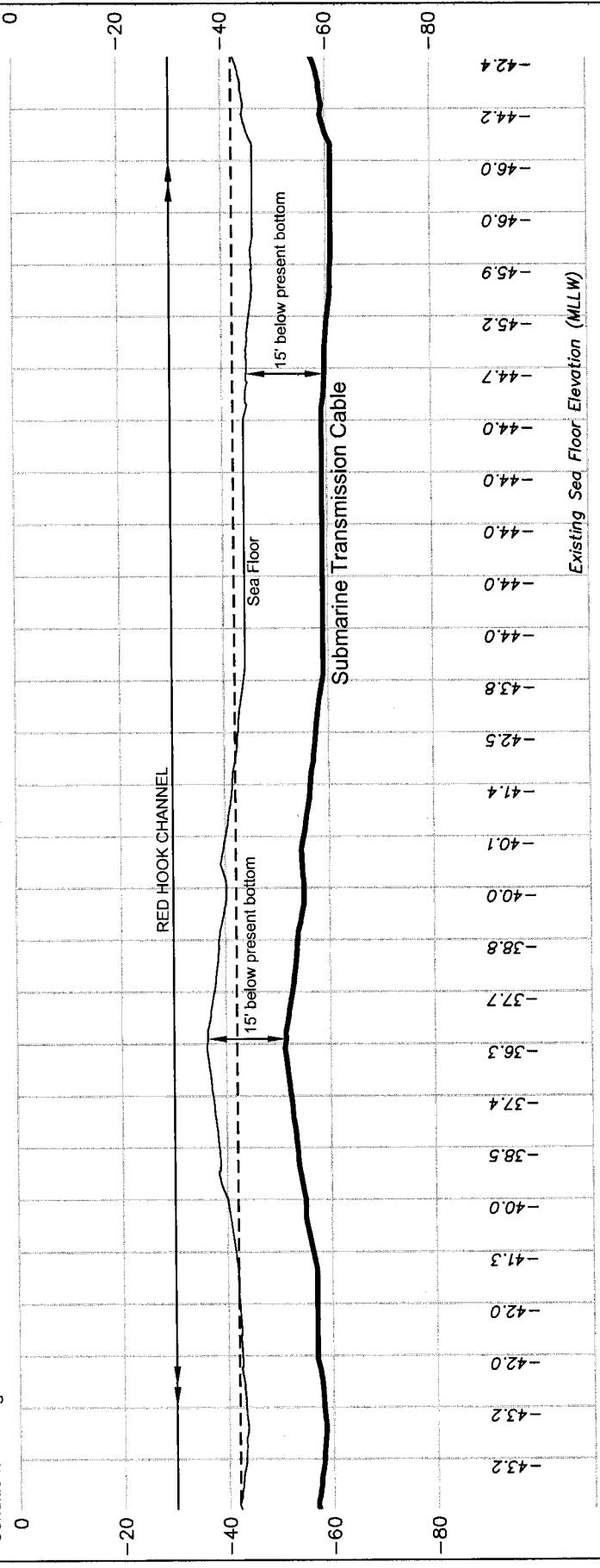
PROJECT NO.  
**P273-011**



DATE: Apr 14, 2009 - 12:00PM  
 FILENAME: H:\P273\Pure Energy\NYC\008\_USACE\P273-US03.dwg

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Hydrographic Contours Along The Submarine Transmission Cable  
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Notes: 1) Vertical Datum - Elevations Referenced to MLLW  
 0 ft MLLW = -2.54 ft NGVD 29.  
 2) 0 ft MLW = 0.21 ft MLLW.

Purpose: Construct, Operate, and  
 Maintain a Submarine  
 Transmission Cable

**Submarine Transmission Cable System**  
**Bayonne Energy Center Project**  
**Cable Profile Within Red Hook Channel - 2 of 2**

SHEET NO.  
 22 OF 29  
 DATE:  
 04/13/09

At: Bayonne, New Jersey & Brooklyn, New York  
 In: Kill Van Kull, Upper New York Bay, Gowanus Bay  
 Applicant: Bayonne Energy Center, LLC

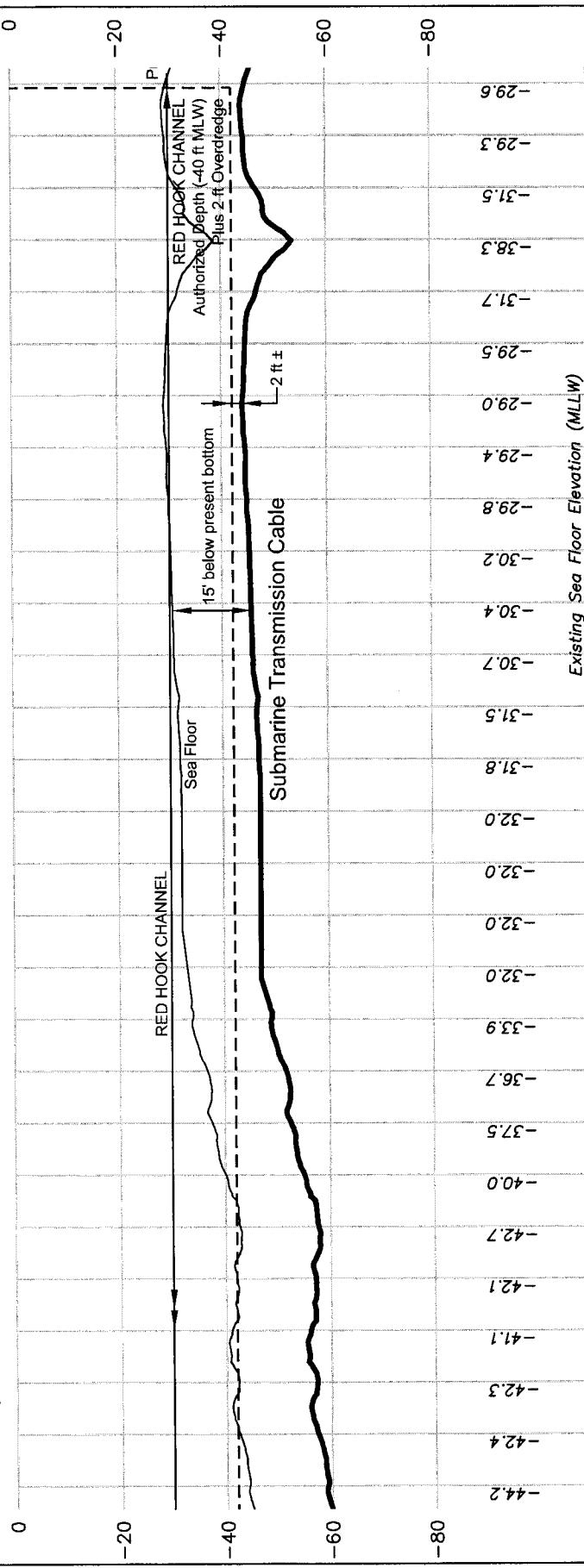
PROJECT NO.  
 P273-011



DATE: Apr 14, 2009 – 12:01PM  
 FILENAME: H:\P273\_Pure\_Energy\_NYC\008\_USACE\P273-US03.dwg

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Hydrographic Contours Along The Submarine Transmission Cable  
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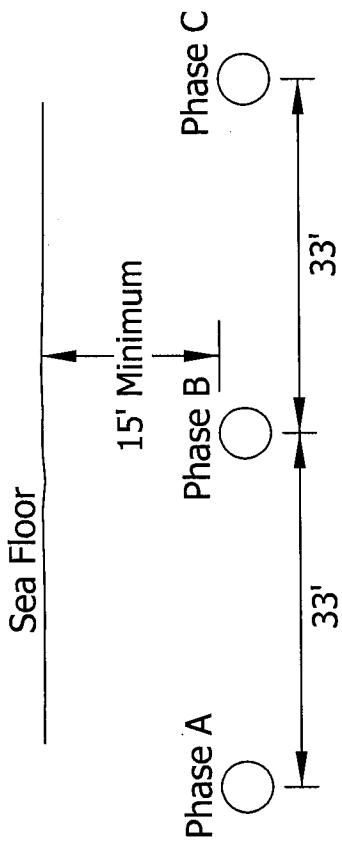
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Water Line ~~~~~



Scale: N.T.S.

Purpose: Construct, Operate, and  
Maintain a Submarine  
Transmission Cable

**Submarine Transmission Cable System**  
**Bayonne Energy Center Project**  
**Typical Submarine Cable Cross-Section Detail**

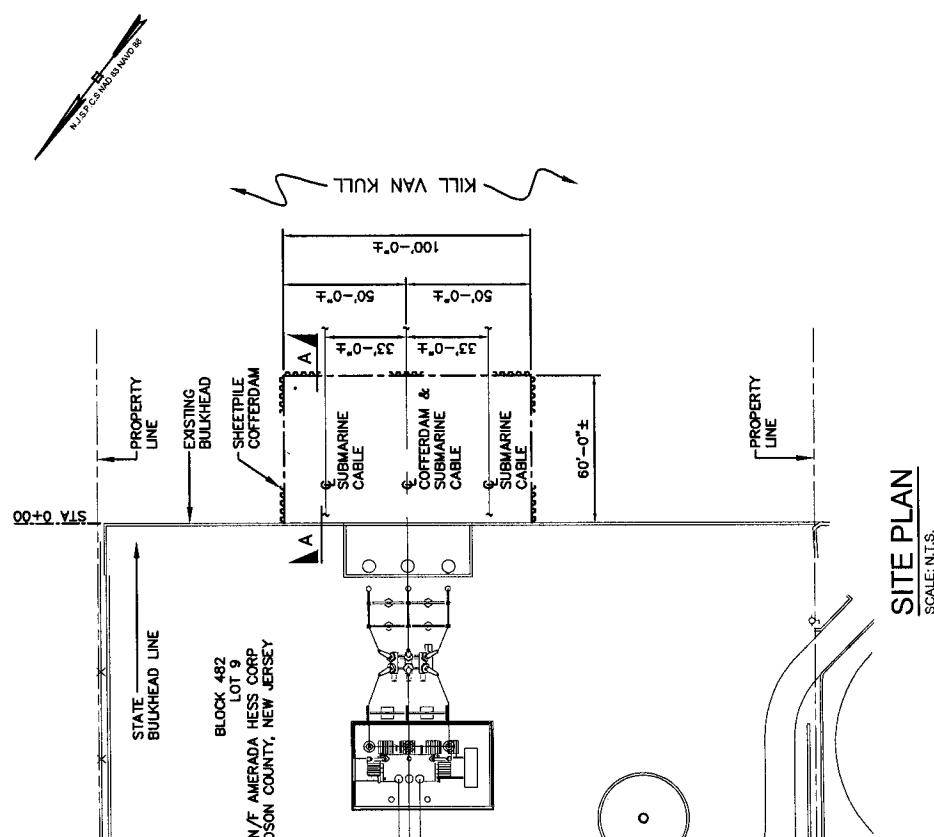
**SHEET NO.**  
**24 OF 29**

**DATE:**

**04/13/09**

**PROJECT NO.**  
**P273-011**





4715C1.dwg JFJAZZI 10/07/08 09:18

Purpose: Construct, Operate, and  
Maintain a Submarine  
Transmission Cable

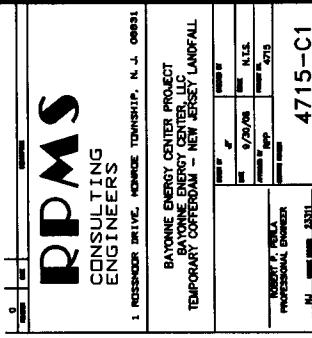
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SCALE: N.T.S.

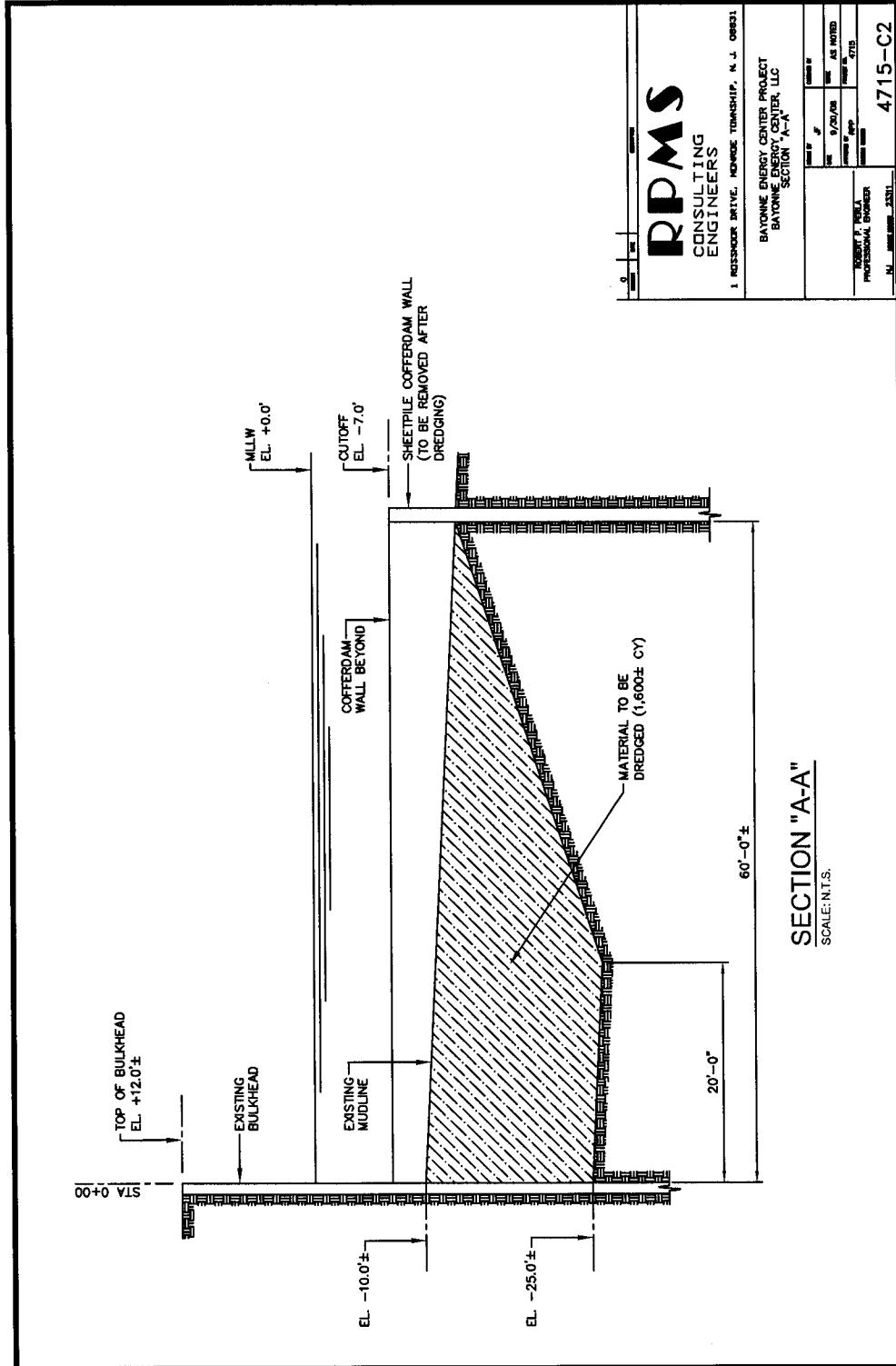
**SHEET NO.**  
25 OF 29  
**DATE:**  
04/13/09  
**PROJECT NO.**  
P273-011

**ESS**  
Group Inc.



**Submarine Transmission Cable System**  
**Bayonne Energy Center Project**  
**New Jersey Landfall Temporary Cofferdam Detail - 1 of 2**  
At: Bayonne, New Jersey & Brooklyn, New York  
In: Kill Van Kull, Upper New York Bay, Gowanus Bay  
Applicant: Bayonne Energy Center, LLC





Purpose: Construct, Operate, and  
Maintain a Submarine  
Transmission Cable

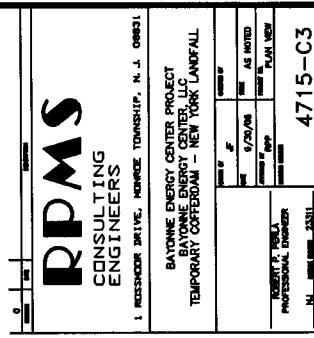
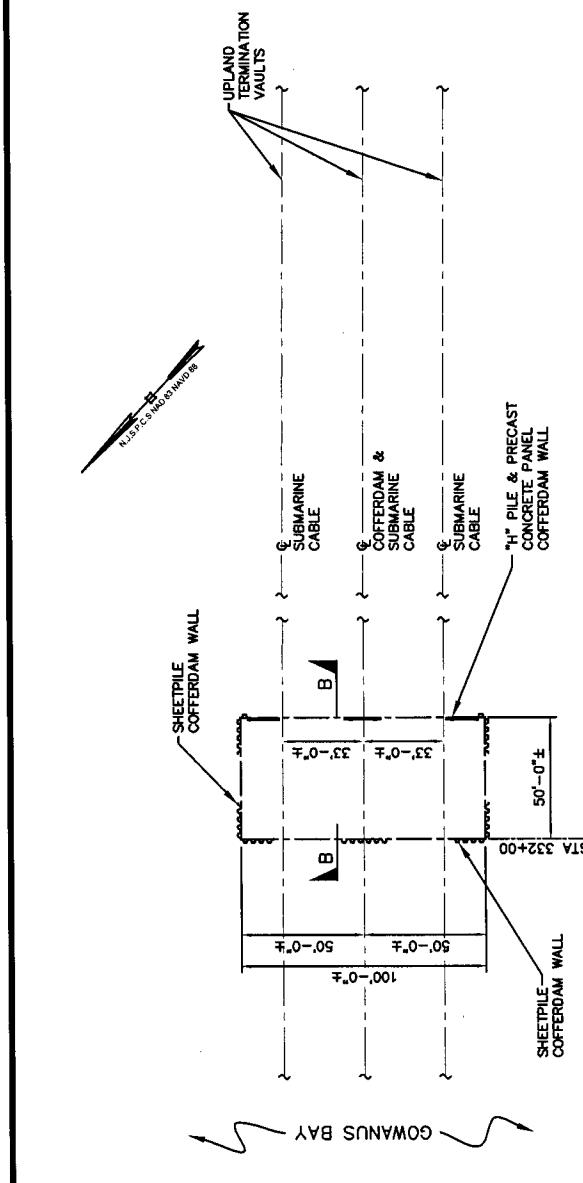
**Submarine Transmission Cable System  
Bayonne Energy Center Project  
New Jersey Landfall Temporary Cofferdam Details - 2 of 2**

SHEET NO.  
26 OF 29  
DATE:  
04/13/09  
PROJECT NO.  
P273-011



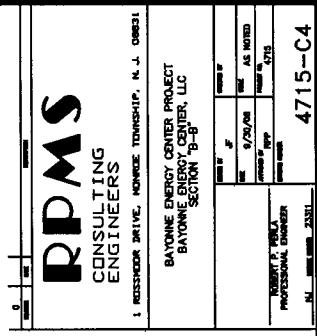
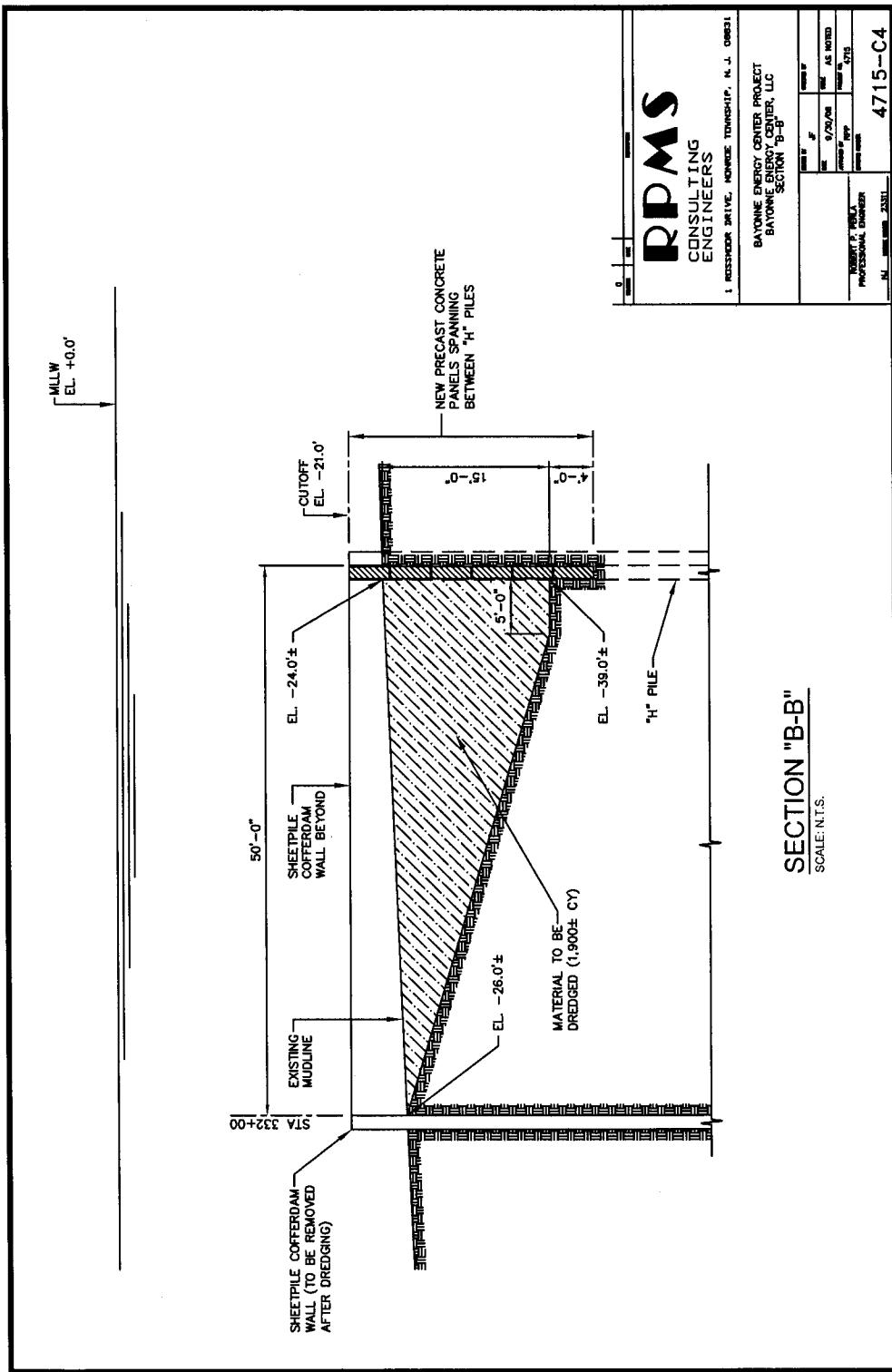
At: Bayonne, New Jersey & Brooklyn, New York  
In: Kill Van Kull, Upper New York Bay, Gowanus Bay  
Applicant: Bayonne Energy Center, LLC





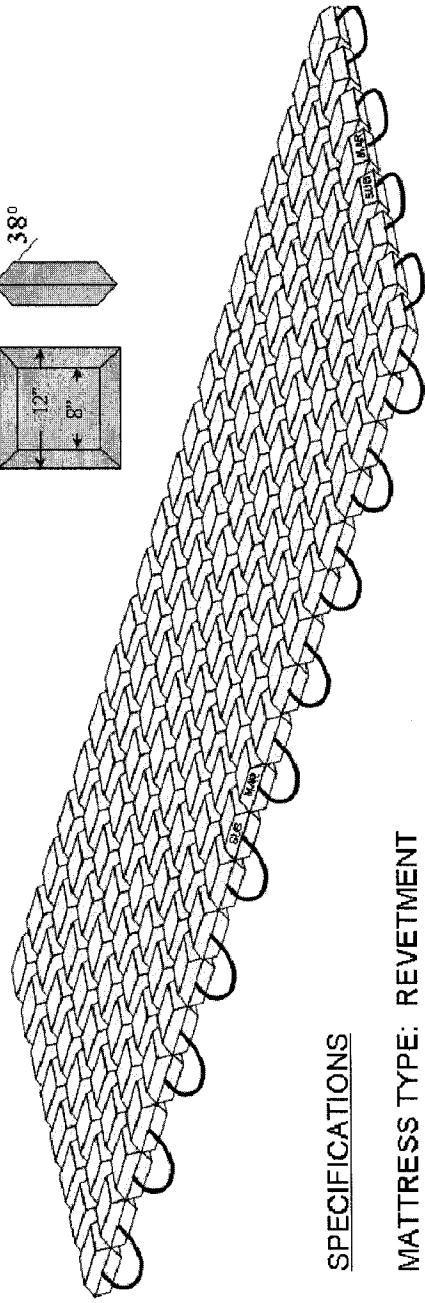
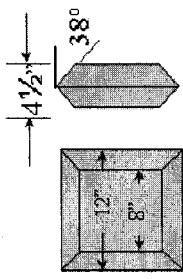
Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable	<b>SHEET NO. 27 OF 29</b>
<b>Submarine Transmission Cable System Bayonne Energy Center Project New York Landfall Temporary Cofferdam Detail - 1 of 2</b>	<b>DATE: 04/13/09</b>
At: Bayonne, New Jersey & Brooklyn, New York In: Kill Van Kull, Upper New York Bay, Gowanus Bay Applicant: Bayonne Energy Center, LLC	<b>PROJECT NO. P273-011</b>





Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable	<b>SHEET NO.</b> <b>28 OF 29</b> <b>DATE:</b> <b>04/13/09</b> <b>PROJECT NO.</b> <b>P273-011</b>
<b>Submarine Transmission Cable System</b> <b>Bayonne Energy Center Project</b> <b>New York Landfall Temporary Cofferdam Details 2 of 2</b>  At: Bayonne, New Jersey & Brooklyn, New York In: Kill Van Kull, Upper New York Bay, Gowanus Bay Applicant: Bayonne Energy Center, LLC	





#### SPECIFICATIONS

MATTRESS TYPE: REVETMENT

MATTRESS DIMENSIONS: 8' X 20' X 4 1/2"

MATTRESS WEIGHT: AIR 6,200 LBS, UNDERWATER 3,600 LBS

CONCRETE DENSITY: 145 LBS. PER CU. FT., 4,000 PSI

160 ELEMENTS: 5 1/8" ULTRA VIOLET STABILIZED COPOLYMER EXTRUDED  
FIBER ROPE, MINIMUM TENSILE STRENGTH 9,500 POUNDS

Scale: N.T.S.

Source: [www.submar.com](http://www.submar.com)

Purpose: Construct, Operate, and Maintain a Submarine Transmission Cable	<b>Submarine Transmission Cable System Bayonne Energy Center Project Typical Concrete Mattress Detail</b>	<b>SHEET NO. 29 OF 29</b>
	At: Bayonne, New Jersey & Brooklyn, New York In: Kill Van Kull, Upper New York Bay, Gowanus Bay Applicant: Bayonne Energy Center, LLC	<b>DATE: 04/13/09</b> <b>PROJECT NO. P273-011</b>

